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Address

IMPORTANCE OF OCULAR LESIONS AND SYMPTOMS.*

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DENVER.

In his presidential address to the American Medical Association, in 1881, John T. Hodgen, of St. Louis, put his thought regarding specialism into such clear, suggestive, forcible language that it is still quoted with approval as the summing up of professional wisdom with regard to this matter. He said: "It can not be denied that the early and exclusive study of the affections of a part, and that often a very small part of the body, has a tendency to narrow the intellectual grasp, and to cramp the powers of a man who yields to the influences incident to such partial and one-sided training."

Sixteen years before, at the first scientific meeting of the American Ophthalmological Society, Henry D. Noyes said: "The specialist has no claim to be an honorable physician who has not first gained the degree by study and fair examination. He must be well educated in general medicine and surgery, and in all their departments. . . . No part or organ can be isolated from the rest of the body in health; nor can it be isolated in the phenomena of disease."

This ideal has been nobly lived up to by the older American ophthalmologists, Agnew, Norris, Thomson, Williams of Boston, and Williams of Cincinnati. For their present high standing in the general medical profession, the ophthalmologists of America owe much to these men and to their colleagues, and especially to him who for so many years as chairman of the committee on membership of the American Ophthalmological Society, made sure that the members of that organization conformed to its high standard of ethical requirements. I mean the elder John Green of St. Louis.

In the present movement toward specialism in medicine the harm and danger of the specialist separating himself from the general profession were clearly perceived from the beginning. The figure of the vine and its branches has the same significance now as it had 1900 years ago. The separated branch, unfruitful, withered, and cast forth to destruction, has as often been seen in the history of medicine as in the history of the church. There will always be need to oppose the dangers of a narrow specialism; but that need being clearly recognized, the risk of falling into such narrowness, or resting content with it, became less.

THE DANGER OF IGNORING SPECIAL ORGANS.

There is another danger attendant on the specialization of practice; one more insidious and more general. The mass of physicians who do not undertake to treat a particular part of the body may remain ignorant of physiologic and pathologic processes as exhibited in that part of the body. Through such indifference, not only does the general profession fail to avail itself of the new discoveries and improved methods arising in a specialty, but it even forgets the older knowledge of which its predecessors availed themselves. Dr. Hodgen in the address to which I have referred, employs two instances drawn from ophthalmology, namely, sarcoma of the chorioid and sympathetic ophthalmia, to illustrate the importance of early operations; and in doing so he shows a familiarity with these conditions that many who are to-day prominent in the practice of general surgery, do not possess.

The reality of this danger is shown by the willingness of many of the profession to remain quite ignorant regarding the diseases of the organs they do not treat; and the failure of medical writers to appreciate the importance of symptoms arising in organs cared for by the specialist. It is quite common to hear the physician who regards himself as a general practitioner avow, unshamed, if not with boastfulness, his complete ignorance regarding the eye and its diseases. Such avowals show that the essential unity of the body has been largely lost sight of by the general profession. The specialist was in grave danger of thinking of the human organism as divisible, so that medically one part might receive attention while the remaining parts were ignored. He was carefully warned against this error. But, even while warning the specialist, the general profession has walked straight into this pit.

The earliest and most accurate diagnosis and the most effective treatment are no more possible to the practitioner of internal medicine, or the general surgeon who ignores the eye, then they are to the oculist who ignores the lesions and symptoms occurring in other parts of the body.

The point here urged is that the physicians and surgeons who remain ignorant of ophthalmology and ignore the eye lesions are more common than the oculists who remain ignorant of the advances in general medicine and surgery. General surgeons have learned but slowly facts with regard to antisepsis and asepsis that were early manifest in ophthalmic practice. Teachers of medicine, if they refer to pupillary symptoms at all, frequently give their students the views of an older generation. The light thrown on pathologic processes by the study of vascular disease in the eye has not been diffused very far in the realm of general pathology. Even William Osler, that master in general pathology and symptomatology, in most respects a model for broad outlook and catholic interest, in his classical paper on Chronic Cyanosis and Enlarged Spleen; A New Clinical Entity,[1] both in his analysis of the cases and in his critical remarks on the condition, makes no mention

* Address before the St. Louis Medical Society, December 7, 1907.

1. Am. Jour. Med. Sciences, August, 1903.

of the ophthalmoscopic symptoms. His own cases, both of which were under observation for considerable periods, do not seem to have been subjected to ophthalmoscopic examination, although it is likely that such examination would have thrown as much light on the general condition he had to deal with as any other single diagnostic procedure.

In general medicine, surgery and neurology, a few eminent workers, like Hughlings Jackson, Clifford Allbutt, Sir William Gowers and Jonathan Hutchinson, entered on their larger fields of practice through the gateway of ophthalmic work. These have all borne positive and emphatic testimony to the immense value they have derived from their ophthalmic experiences as a preparation for subsequent practice in other fields.

ATTENTION TO THE EYE IN THE PAST AND ITS ADAPTATION TO OBSERVATION.

Enough has been said to show that the subject is worthy of more general, careful consideration of the profession at large. In former times, when it was still recognized that the eye belonged to the body, and the general physician or surgeon felt it as important an organ to be interrogated for symptoms of disease as the stomach or the heart, it played no small part in the progress, the teaching and the practice of medicine. From Hippocrates and Celsus to Sydenham and Rush, it had its full share in symptomatology—from the deviating eyes of the convulsed infant, to the ocular signs of death.

Stillé tells us that Robert Hamilton, who first called attention to the antiphlogistic action of mercury, which assumed such overshadowing importance in the medical and surgical practice of English speaking countries a century ago, based his views on the effects of this drug in hepatitis and the ophthalmias. The melting away of iritic exudates under the influence of mercury was a favorite illustration of the power of that drug down to my own student days. At that same period the views of Cohnheim and Stricker, based on the study of inflammation of the cornea, colored all the teaching regarding inflammatory processes.

The services the eye can render to general pathology and general diagnosis have not been exhausted in the past. The situation and construction of the organ of vision are peculiarly favorable for its accurate and minute investigation. Its delicacy of structure and processes make it peculiarly sensitive to pathologic influences. The minute differentiations of the impressions received through it render the subjective phenomena of vision of peculiar importance in symptomatology, and as a basis for the study of mental processes. There is no reason to assume that the wealth of results it is capable of yielding to the careful observer has been fully developed or exhausted by the students of earlier generations.

The edema of the lids, noted by the older clinicians as a symptom of chronic nephritis does not depend, like the edema of the ankles in cardiac failure, on a peculiar mechanical relation of the parts. It is, rather, the local manifestation of a general process noticeable in the lids simply because of their delicacy of structure and their ready response to a general pathologic influence.

The same delicacy of response is manifest in the lid edema which may be brought on in susceptible individuals by the eating of fish, or other articles of diet which cause obscure autointoxication or reflexes from irritation in the alimentary canal. There remain a certain number of instances of lid edema, yet to be connected with their exciting causes, by patient study on the part of the rhinologist, the neurologist, or the specialist who devotes himself to internal medicine.

What other portion of the mucous membrane of the body can be compared with the conjunctiva for favorable situation and general fitness for the study of the physiologic and pathologic processes of the mucous membranes in general? Why have not the ophthalmo-reactions to the tubercle and typhoid bacilli been thought of until this year? Its thinness, transparency, normal adaptation to exposure, all especially prepare it for a field of intentional experiment, or one where we may best study the effects of accidental irritation and infection. As a result of this favorable situation, the reactions of the conjunctiva to living bacteria, constituting the various forms of conjunctivitis, have been more generally and more closely studied than those of any other portion of the body. There exists already with regard to this department of ocular pathology information of such extent and importance, that an acquaintance with it might well be made a point of departure for further studies regarding the bacterial diseases of other portions of the organism.

It would be hard to imagine a tissue better adapted or better placed than the cornea for the observation of the effects of injury or disease, or the processes of repair. Transparent and easily accessible, it is yet, by the closure of the lids, fairly embedded within the body. Normally free from vessels, it is rendered vascular by continued irritations. The development of vessels and the retrogressive changes of their removal, the deposit of new material and its subsequent organization into tissues, or its elimination, are all open to free inspection at the will of the observer, and without disturbing the process studied. And with the corneal microscope our studies may be carried on under lenses of considerable magnifying power.

The anterior chamber is a great lymph space, comparable for purposes of experiment to that of the peritoneum. But like the cornea, it is open to inspection and study, without disturbance of the processes continuously carried on within it. Naturally it is the lymph space of the body about which most is known. The currents of fluid within it, their chief entrances and exits; the changes in the composition of the lymph, brought about by adventitious circumstances; the progress of pathologic developments within it; its ability to dispose of the débris of disease processes; have all been studied attentively and lie open to farther investigation. It is the normal starting point for a study of lymph spaces in general.

In the iris we have open to inspection and experiment unstriated muscle, pigment epithelium, blood vessels and lymph channels; and withal a wonderfully delicate manifestation of the effects of motor nerve impulses.

In the crystalline lens there is a mass of modified epithelial tissue, the transparency of which affords the most delicate test known for the action of influences that may disturb its nutrition. With certain gross changes produced in it by sugar and naphthalin, the general profession is already somewhat familiar. More extended studies of this subject, such as have been carried on by Leber and Römer in searching for the causes of cataract, will bring to light facts of importance with reference to all tissues of epithelial origin.

OPHTHALMOSCOPIC STUDY OF DISEASE.

But it is through the ophthalmoscope that ophthalmology is able to bring its greatest contributions to gen-

eral medicine. In the words of Sir William Bowman: "The important invention of Helmholtz, by opening to the view of all instructed men the marvelous background of the transparent chambers of the eye, has gradually awakened inquiries on the part, first of the oculists, and then of physicians, which even in their infancy have yielded results of rare and unexpected value." With equal inspiration and eloquence has this been set forth by our own leader in ophthalmoscopy, Edward G. Loring: "In the whole history of medicine there is no more beautiful episode than the invention of the ophthalmoscope, and physiology has few greater triumphs. With it, it is like walking into Nature's laboratory and seeing the Infinite in action."

So vivid are the impressions that we obtain through this instrument; so fascinating are the lines of investigation that it opens up to him who has learned to use it; so intoxicating is this close contact with the phenomena and laws of life, that among the physicians who had the ophthalmoscope first placed in their hands, some, like Jaeger, devoted their lives to the path of study which it rendered possible. In the collection of sketches of ophthalmoscopic appearances which were purchased of Jaeger's heirs by the late William F. Norris, now in the College of Physicians of Philadelphia, is one on which Jaeger is said to have spent two hundred hours of labor. Think of it; twenty days, ten hours a day, in portraying a single eyeground. Such are the possibilities of ophthalmoscopy!

Of the early American students who first mastered the new instrument of precision, every one made ophthalmology his life work. You may have noticed that in the list of great general physicians and surgeons who early became acquainted with the ophthalmoscope and made their ophthalmic training a fruitful source of achievement, I mentioned the name of no American. Without exception, the able young men who went from this country in the first years of the ophthalmoscopic era to study in the German and French ophthalmic clinics, returned to devote their lives to the line of work which had so awakened their enthusiasm. Williams of Cincinnati, Noyes and Agnew of New York, Dyer and Norris of Philadelphia, Holmes of Chicago, Green of St. Louis, Pope of New Orleans, and their many colleagues, came back to create American ophthalmology, which is in some important respects the most developed branch of medical science the world has yet seen.

But whether working in a more general field or following ophthalmic practice as a specialty, the trained ophthalmoscopist has everywhere contributed to the depth, breadth and definiteness of medical knowledge. The importance of a few of his contributions to symptomatology begin to be appreciated everywhere. What he accomplished for general pathology was well indicated by Rudolph Virchow, when in portraying the change wrought in medical science by the anatomic method of investigation he said: "This change has been carried out to the greatest extent by ophthalmic surgery. . . . Since the wonderful discovery of the ophthalmoscope, anatomic analysis, even without the use of the knife, has become capable of penetrating so far into the individually remote, that we can immediately observe and study by themselves the smallest features of the fundus oculi, even, indeed, its single cells, or groups of cells, just as in an artificial preparation of an eye that has been excised."

Such enthusiasm is easily understood by any one who has watched disease process develop, through the ophthalmoscope. Recently great advance has come to medicine and surgery through exact diagnosis made possible by use of the Roentgen ray. Even ophthalmology acknowledges its important debt to the German physicist.

Yet the revelations of the Roentgen ray, compared with those of the ophthalmoscope, are as the groping among twilight shadows to clear vision in strong sunlight. Not only do we see things with the ophthalmoscope, but we see them clearly, and see them with the magnification of a good working microscope, and we see them alive. Compare the herbarium specimen with the living plant; the stuffed skin in the museum with the flying, nesting, singing bird; the best injected preparation, with the blood currents streaming through the capillaries of the frog's foot; and you may have some appreciation of the difference between the study of pathologic anatomy with the aid of the microtome, and the anilin dyes, and its study in the living eye. The great author of cellular pathology was swept away by enthusiasm for the invention of Helmholtz, because he knew that men watching the pathologic processes actually go forward in the living body, would gain an understanding and appreciation of them that could never be gained in the dead-house.

It would, indeed, be interesting to support the main proposition of this paper by passing in review a few of the contributions of ophthalmoscopy to general pathology and diagnosis. But when I recall the elaborate articles of Foerster and Norris, the three hundred to six hundred page volumes of Allbutt, Gowers, Knies and Schmitt-Rimpler, I recognize that I must respect the limitations imposed by human endurance and patience.

It would be fascinating to review the ophthalmoscopic studies of cerebral disease—cerebroscopy, Bouchut called it, with poetic license so moderate that it was admissible even in a scientific work. It would be interesting to trace the development of our knowledge of the fundus changes in renal disease, until the physician with the ophthalmoscope in his hand, becomes, through his knowledge of the sequences of disease, a prophet. The recognized ophthalmoscopic changes occurring in connection with acute specific fevers are gradually accumulating; and will in future constitute an important chapter in the descriptions of several of these diseases. The ophthalmoscope, as in the case reported by Dr. Clarence Loeb, of this city, has made the diagnosis between typhoid fever and acute miliary tuberculosis. What ophthalmologist has not been called on for positive evidence regarding syphilis? And is there any group of lesions more completely pathognomonic than those of syphilitic chorioretinitis with dust-like opacities of the vitreous?

But leaving unmentioned a list of other general and local diseases with regard to which the ophthalmoscope gives important information, let us, to bring out the growth of our knowledge of pathology through ophthalmoscopic observation, take some diseases of the circulatory apparatus. I will exclude diseases of the heart, like aortic regurgitation, causing a retinal arterial pulse; or persistent foramen ovale, with its dilated retinal veins; and the diseases which chiefly affect the constitution of the blood itself, as chlorosis, leucocythemia, polycythemia, and pernicious anemia with all their striking retinal changes. Let us consider simply the vessel walls, and the conditions affecting the circulation of the blood immediately within the retina.

VASCULAR DISEASE IN THE RETINA.

In 1854, Jaeger reported his first observation of the visible movement of blood in the veins of the retina, the intermittent blood column subsequently seen and described by others. About 1856, Virchow predicted that with the ophthalmoscope we would be able to study during life the changes connected with embolism in the retinal arteries; and in December, 1858, von Graefe observed these changes in an eye suffering from sudden blindness, the patient having an endocarditis. In 1866 other cases were published by Saemisch and Hirschman. Knapp, in 1869, reported a case in which the obstruction affected only a visible branch of the central artery and caused blindness of but part of the visual field. After this, cases of so-called embolism of the retinal artery multiplied rapidly. Many, like Knapp's, were only partial. Benson, in 1883, reported the first case, since followed by many others, where the macula escaped damage by being supplied through a cilioretinal vessel. Some cases, like Graefe's, fit perfectly with the diagnosis of embolism. But of the hundreds of cases of so-called retinal embolism now on record, a comparatively small proportion have any clear claim to that diagnosis. This fact has been pointed out, from time to time, by various observers, especially by Haab.

In 1894, Benson reported a case of transient blindness where, during the brief attack, he had the opportunity to observe a retinal artery temporarily empty; but soon becoming refilled and normal in appearance. Since then cases of the sort have been reported by several observers. The most complete is that of Harbridge, which was examined during the attacks by de Schweinitz, Zentmayer and others. It has thus been established that spasm of an artery may occur, causing complete loss of function for the time being. We have in such spasm an explanation for the visual and other sensory disturbances that attend migraine; an explanation probably applicable to other important pathologic conditions. We have thus demonstrated, also, a very important factor in the causation of more permanent vascular obstructions. Patients suffering from permanent obstruction not rarely give a history of previous attacks of transient blindness. A striking case of the kind has fallen under my own observation.

There have also gradually accumulated a very large number of ophthalmoscopic observations of permanent organic changes in the walls of the retinal vessels, with a smaller number of observations with reference to the vessels of the chorioid. These have been made most frequently in cases of renal retinitis, syphilitic diseases of the retina and chorioid, ocular lesions of gout, so-called senile changes, and some of the anemias. But such vascular lesions have also been noted in connection with acute infections and other conditions.

With the clinical histories of various forms of obstruction of the retinal circulation there have been accumulated observations of the conditions found in these cases postmortem, or on excision of such eyes for absolute glaucoma. As a result of these ophthalmic studies of vascular obstruction, the more crude notions regarding embolism, thrombosis, and endovasculitis imported into ophthalmology from the other realms of general pathology have been corrected, developed, rendered more definite, and brought into relation with one another.

Although these observations have not yet been thoroughly digested, the work of Harms and of Coats in the last few years has thrown a good deal of light on the connection of changes in the vessel walls, with different forms of obstruction occurring in the retinal vessels. It appears that obstruction in the retinal circulation, arising primarily in the arteries, is quickly attended by thrombosis in the veins; while obstruction arising from primary lesions in the veins produces thrombotic closure of the corresponding arteries. The primary changes causing obstruction are, perhaps, in the order of their frequency, (a) alteration in the intima of the vessel; (b) lowering of the arterial pressure, either by general disease, or by local spasm, and (c) the lodgment of an embolus from some distant organ. We have learned, too, that in the retina arterial obstruction is not constantly, if, indeed, generally, attended with hemorrhagic infarction.

I have made no mention of the ischemia of the retina originally described by von Graefe, or that brought about by severe hemorrhage in distant organs, or that caused by the toxic influences of quinin and other drugs. It would have been interesting, also, to review some of the experimental studies based on observation of the retinal circulation; as that by Hughlings Jackson, regarding the probable influence on the cerebral circulation of ice applied to the spine; or that by Wadsworth and Putnam on the effects of obstruction of the return of blood through the jugulars, and the influence of amyl nitrite. Neither have I mentioned retinal hemorrhage, a subject on which a volume might be written, and which is of great importance with reference to diagnosis and prognosis in many general diseases, and which is suggestive as to the pathology of conditions produced by injury. Even unusual forms of retinal hemorrhage, as those due to compression of the child during birth, compression of the thorax by violence, or those associated with cranial fracture and cerebral traumatism, are of general pathologic interest.

I have tried to suggest the enormous importance of these vascular lesions that are so frequently encountered and so readily studied by those who use the ophthalmoscope. Is this importance generally appreciated by the profession at large? I think not. In the last edition of one of our best treatises on pathology (Stengel), I find in thirty-five pages devoted to such diseases of the circulatory apparatus a single reference to the eye; a discrimination coming down to us from Cohnheim, that the retinal arteries are end arteries, like those of the base of the brain, the spleen, kidney and lung; and their obstruction is, therefore, followed by infarction. But among pages of descriptions and illustrations of postmortem appearances nowhere is it suggested that any lesion, to the elucidation of which these thirty-five pages are devoted, much less that nearly every lesion there mentioned, can be studied with greatest profit in the living body by means of the ophthalmoscope.

THE EYE DECLARES LESIONS OF RELATED PARTS.

Finally, in addition to lesions affecting the eyeball and the parts immediately adjoining and accessory to it, we are able to study through it, and these adjoining parts, and only through these, the results of lesions lying farther back—the symptoms manifested through the vascular and nervous connections of the eye.

The ophthalmic artery coming from the carotid within the skull, and the orbital veins emptying into the cavernous sinus, disease or injury within the cranial cavity is often manifest chiefly through disturbances of circulation in the orbit.

Of the twelve pairs of cranial nerves, six, including

those most expressive of deep lesions, are wholly, or in part, distributed to the eye and its appendages. The facial nerve reaches the lids and the lachrymal gland by a circuitous route through the temporal bone and the deep cavities of the face. The other motor nerves, the abducens, pathetic and oculomotor, the latter with its distant connections through the sympathetic, are all devoted entirely to ocular movements. The fifth, the nerve of general sensation of these parts, has its trophic function best revealed in the disturbances of the cornea. Lastly, the optic nerves have a high differentiation of function, and wide connections that fit them for revealing the presence and location of deep-seated lesions, with a definiteness and diagnostic value of a higher order than is possible through any other nerve in the body.

Die Neurologie des Auges, of Wilbrand and Saenger, is a work that has already reached three volumes, including some 2,400 octavo pages, and promises to continue to develop at least throughout the lives of its authors. It is the abstract of a literature as important from the point of view of general symptomatology and general pathology as any literature of equal extent to be found on the shelves of our medical libraries. Let me illustrate the diagnostic value of these symptoms by instances drawn from the domain of disturbances of the field of vision.

Diseases involving the pituitary body, and immediately adjoining parts, have in recent years attracted much attention on the part of pathologists and clinicians. In acromegaly disturbances of the field of vision are among the most significant signs of the disease in 58 per cent. of the cases (Putnam). Certainly, in a case of my own the peculiar impairment of the field of vision furnished the basis for the earliest diagnosis of the disease. In a large proportion of these cases the symptoms bring the patient first to the ophthalmologist.

In pituitary disease not attended by the gross hypertrophies of acromegaly, disturbances of the field of vision, and later atrophy of the optic nerve, are almost the only symptoms to indicate the essential character of the case. Within a year I have seen a case probably of this character. This patient had been under medical observation for several years. She was 27; menstruation commenced at 16, had always been deficient, and had ceased two years later, and from that time she had been out of health. Impairment of vision had existed for three years. But it was not until perimetry showed that the temporal fields had been especially invaded that the true seat of the essential lesion was revealed. It may be noted that the best clinical paper and bibliography on cases of this class, although in many respects they are outside the domain of ophthalmology, is one by Yamaguchi, in the Manz-Sattler *Festschrift*.[2]

Homonymous hemianopsia, when complete, is such a striking symptom, is so often fairly understood by the patient himself, that it has not been ignored in the general discussion of cerebral disease. But smaller homonymous defects in the visual field, quite generally ignored and easily overlooked, if not carefully sought for, are equally important for purposes of general diagnosis. I have met three cases that strikingly illustrate this.

An inmate of the Actor's Home, near Philadelphia, returned from the city one evening with flushed face, slight disturbance of coordination, evidences of excitement, and inability to remember where he had been since the middle of the afternoon. The superintendent accused him of drunkenness, and admonished him accordingly. He was, in fact, a total abstainer. An indefinite impression that something was wrong with his vision, although he could read small type, brought him to me, and examination showed a hemianopsia, doubtless due to cerebral hemorrhage, from a second attack of which he died.

The father of a physician, a banker, thoroughly respected by his community, had recently plunged into wild dissipation. His son brought him to me because of some difficulty with sight, and examination revealed a perfectly distinct homonymous defect of the lower left quadrant of each visual field. This was the first evidence of organic disease of the brain. He died a few weeks later of acute cerebral softening.

A man of 53, suffering from obscure nerve disturbances, was sent to me a few weeks ago by a careful neurologist in the hope that examination of the eyes might throw some light on the case, which the attending physician and the neurologist were inclined to think might be hysterical. There was no especial complaint regarding the eyes, and other methods of ocular examination threw no light on the case. In seeking for evidence of hysteria in the field of vision, however, I came on a perfectly definite homonymous defect of the left upper quadrant in each field, and on this symptom based a diagnosis of organic disease of the central nervous system. Ten days later, while on his way to Chicago in search of further counsel and treatment, the patient died suddenly, the newspapers said, of "heart disease."

PECULIAR AND UNAPPRECIATED IMPORTANCE OF OCULAR LESIONS.

The lesions of the eye have peculiar importance with reference to general pathology and general diagnosis. For hundreds of years every complete description of disease has told of the condition of the pulse at the wrist. This was not because the radial artery was the most important artery in the body; not because it was particularly susceptible to the influence of disease; not because it presented alterations that other arteries did not present, but simply because it was accessible. The changes it had in common with other parts of the arterial system could here most readily be studied. The educated finger of the physician was most familiar with the sensations produced by the radial pulse, and on that account, by examination of it, could best appreciate the changes occurring throughout the arterial system. So will it be with the eye, when the changes in it, indicative of general disease, come to be more generally appreciated. Here pathologic processes are accessible to direct examination during life. Here they have been most thoroughly and minutely studied. With regard to these lesions we are arriving at the best estimate of their general significance.

In time the ocular symptoms of disease will again be understood and appreciated by the general medical profession. More highly appreciated than ever before, since with our present knowledge they are enormously more significant and important. It is not strange that recently they have been neglected. If there was danger that the specialist studying one little organ might neglect the diseases of all other parts of the body, it was certain that the general profession, turning the care of that little organ over to the specialist, while undertaking to look after all other parts of the body, would come to neglect it more generally, more certainly, and more

2. Klin. Monatsbl. f. Augenh., 1903.

completely than the specialist could ever neglect general medicine. Only no one seems to have felt the importance of warning the profession of this greater danger. The oculist regarded the eye as his peculiar province; was inclined to think contemptuously of any acquaintance with it possible to the general practitioner, and was selfishly willing that information regarding it should always be sought through himself. He has now for years recognized that the process of confining this knowledge to the specialist has gone too far, and he has tried, in elementary papers and addresses before general medical societies, to combat the prevailing ignorance. But the results of efforts along these lines have not been sufficient to bring the general profession to any adequate appreciation of what all physicians and surgeons might learn, and ought to learn through careful study of the eye.

With the development of modern ophthalmology, in the last half-century, have come the special journals, aggregating now between twenty and thirty thousand pages per year, into which have been poured the records of the enormous number of observations regarding newly discovered facts in this domain of medicine. There have grown up, too, the special societies, and sections of general societies, to which were relegated the discussion of these newly observed facts. The general practitioner of to-day is thus distinctly at a disadvantage, with regard to keeping posted in the new knowledge of ophthalmology, as compared with the general practitioner of fifty years ago. The fact that the practice of ophthalmology is destined to be in the hands of the specialist has robbed this branch of any interest for the general medical student, beyond a sufficient knowledge of it to pass his examination in those schools in which an examination in it is required as a step toward the medical degree.

If the general medical profession is to be brought to appreciate the importance to it of modern ophthalmology, we must begin with the medical student. Admit that the average medical student does not look forward to practicing ophthalmology, neither will he practice chemistry for a profession, nor dissection, nor pharmacology. The great mass of medical men will leave bacteriology and pathologic histology in the hands of specialists. Yet these branches claim a very large proportion of the years spent in undergraduate study. Their educational and developmental value, which are unquestioned, and which justify the attention paid to them, is less closely related to practical medicine and surgery than that of a similar training in the examination of the eye, particularly with the ophthalmoscope.

The anatomic method, sedulously developed and cultivated for one hundred and fifty years, since Morgagni systematically sought "the seat of disease," has made its contribution, has laid its foundation stone in the great temple of medical science. No man working in the dead-house, though, like Rokitansky, who will celebrate his thirty thousandth postmortem examination, will ever again make a revolutionary contribution to our knowledge of disease. In the enormous swelling of the choked disc and the great changes in the color of the disc and in retinal or chorioidal pigmentation compatible with full vision, we have evidence that anatomic appearances may prove misleading. Appreciation of the fact that the anatomic method was approaching the limit of its development may be found in the London and Rome addresses of its greatest exponent, Virchow.

We are turning again to the study of disease in the living body. This is well exemplified in the address of William H. Welch on Adaptation in Pathologic Processes, delivered in Washington ten years ago, and in that on Neurology, by Putnam, at the Congress of Arts and Science, in connection with the World's Fair in this city. In the accurate study of pathologic processes during life, the skilled examination of the eye, particularly with the ophthalmoscope, must always play an important and in the near future a leading part.

Twenty-eight years ago Gowers suggested that all medical students should be taught to use the ophthalmoscope as a part of their course on anatomy. Has not the time arrived when this suggestion should be carried out? There are other directions in which clinical anatomy, as distinguished from postmortem anatomy, needs to be cultivated. But here, surely, is one point in which the training of the medical student might bring him into closer relation with the clinical problems of disease. Only when we have a generation of medical men so prepared for their life work will the importance of ocular lesions in general pathology and general diagnosis be fully appreciated.

Original Articles

INFANT MORTALITY IN THE SUMMER MONTHS.

METHODS ADOPTED IN YONKERS FOR ITS REDUCTION AND THE RESULTS.*

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Infant mortality in Yonkers during the early nineties was increasing at a greater ratio than the growth of the city. The deaths were at the maximum in July and August, and the chief causes of death were the various forms of digestive disorders. If this unnecessary waste of infant life had been allowed to go on unchecked it would have assumed alarming proportions. Two thoughtful men, one a physician, the other a layman, considered the subject and decided to take some steps to reduce the mortality. In 1893 the Nathan Strauss Milk Dispensary was opened in New York, and it was deemed a wise move to establish a similar dispensary in Yonkers, and in consequence the Milk Dispensary of St. John's Riverside Hospital was opened in 1894 and has been in operation during the summer months every year since with the exception of the summer of 1904, when it seemed impossible to procure a supply of pure milk. The founders believed that if such a dispensary were successful it would be more effective in a small community, as Yonkers had at that time a population of about 37,000, and a larger proportion of the children living in the tenements could be reached, and all physicians urged and encouraged to help in the movement, and it would be a comparatively easy matter to study accurately the death rate.

With the establishment of the milk dispensary a vigorous campaign of education was inaugurated through the press, by personal interviews with physicians, and by means of cards of instruction for mothers. Up to this time no municipal action had been taken to insure

* Read before the First District Branch of the Medical Society of the State of New York, Oct. 28, 1907.

a supply of clean milk. The city officials were urged to take the necessary steps and the dairymen were encouraged to send clean milk to the city. A close watch was kept of the deaths and careful statistics compiled. The result of the first season did not show a lowering of the death rate; the second season a marked decrease was shown, and the third season a decrease of 50 per cent. in the number of deaths from digestive diseases.

In the *New York Medical Journal*, Oct. 9, 1897, appeared a statistical study of the effect of the campaign on infant mortality in Yonkers, and the claim was then made of a 50 per cent. reduction in infant mortality due to digestive disturbances and that the reduction could be maintained, and it is proposed now to give figures of infant mortality in Yonkers for the succeeding ten years and draw deductions from them.

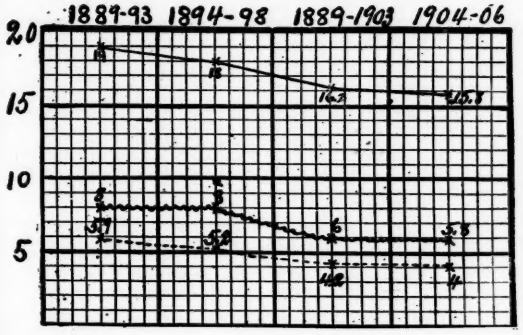

Chart 1.—Death statistics, 1889-1906. Solid line, death rate all ages per m. of population; wavy line, children under 5, per m. of whole population; dashed line, infants under 1, per m. of whole population.

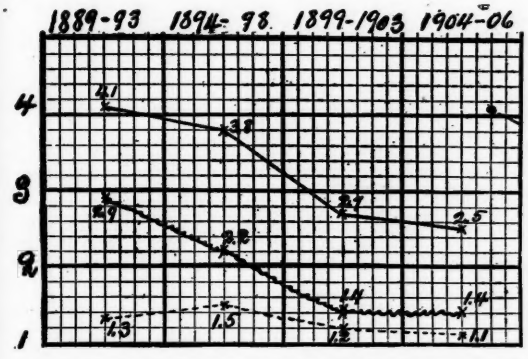

Chart 2.—Death statistics, 1889-1906, for June, July, August and September. Solid line, deaths children under 5, per m. of whole population; wavy line, deaths children under 5 from digestive diseases per m. of whole population; dashed line, deaths children under 5, all other diseases, per m. of whole population.

The problem of infant mortality in the summer months is not wholly one of impure milk, although it is the largest factor; the other factors are overcrowding in the tenements, ignorance of mothers in caring for and feeding their babies and (in the early years of the campaign) imperfect attention on the part of physicians to the feeding of infants brought up on the bottle, and, further, the irrational method of treating these babies when they are suffering from digestive disorders and toxemias. As a result of the agitation inaugurated fourteen years ago great advances have been made in all directions, not so much, perhaps, as had been hoped for, but a slow, continued progress, which will be accelerated as the public becomes enlightened and realizes the importance of the movement.

The steps of our advancement in Yonkers may be enumerated as follows: Twelve years ago the city appointed a milk inspector, and soon afterward came the adoption of a sanitary code pertaining to the production and sale of milk, registration of all producers and dealers in milk, inspection of all local dairies, and inspection of stores retailing milk, with the result that the number of places where milk is sold at retail has been more than halved, although the population has doubled.

For the past five or six years the city has employed a veterinarian to examine all cows within the city limits. The milk coming into the city from without has improved in quality, but the dairies where it is produced are not inspected, and here is the weak point in our defense. An assistant milk inspector has been appointed, and it is planned to maintain a rigid inspection of all dairies sending milk to Yonkers.

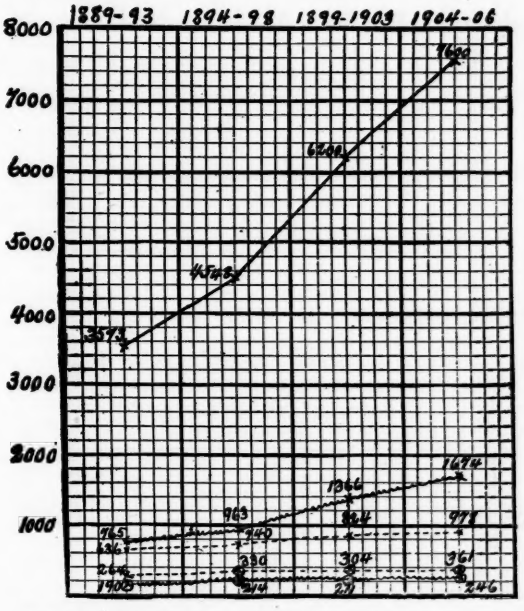

Chart 3.—Death statistics, 1889-1906. Solid line, average population children under 5, in 5-year periods (estimated on U. S. census, 1890-1900); upper wavy line, average population in infants under one; upper dashed line, total deaths in 5-year periods; lower dashed line, deaths children under 5, in 5-year periods; lower wavy line, deaths infants under 1, in 5-year periods.

About ten years ago the first sanitary inspector was appointed, a woman of rare intelligence, zeal and training, and largely through her efforts the sanitary condition of the tenements has been improved, a number of the old houses have been condemned and vacated by the Board of Health and many others have been placed in a sanitary condition. More recently a practical plumber has been appointed, an additional sanitary inspector, and a systematic inspection of tenements was begun.

The first district nurse was put to work about eight years ago and at present four are regularly employed, the funds being supplied by voluntary subscriptions, and during the past three summers the board of health has employed two additional nurses to look after sick infants. One other cause for betterment which will

largely count in the future was the adoption two years ago by the board of health of regulations requiring in all new tenements a sufficiency of light and air.

The mothers are still ignorant, but in most cases they will listen to reason, and the physicians, especially the younger ones, have learned and appreciate the art of infant feeding and some few have become experts. The treatment of diarrheal diseases has been revolutionized in the last fifteen years; the old shotgun prescriptions are things of the past, and the physician to-day takes steps to prevent the summer digestive disturbances, and attempts to cure the sick infant in a rational manner.

There are two other supposed factors in the causation of these deaths, not controllable, the high temperature and the humidity of the summer months, and the prevalence of an epidemic of one of the exanthemata, in the preceding winter or spring, leaving a lot of children in

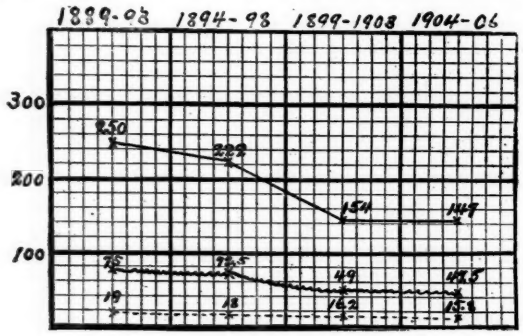

Chart 4.—Death statistics, 1889-1906. Solid line, death rate infants under 1, per m.; wavy line, death rate children under 5 per m; dashed line, death rate all ages per m.

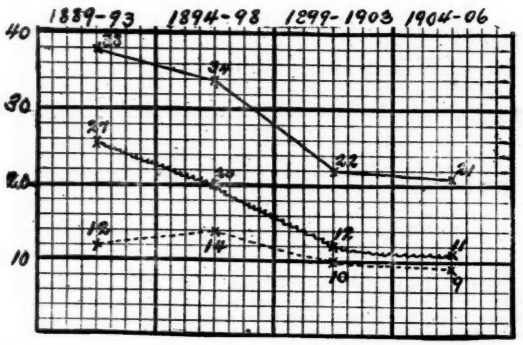

Chart 5.—Death statistics, 1889-1906, children under 5 for June, July, August and September. Solid line, total deaths children under 5; wavy line, deaths, digestive diseases, children under 5; dashed line, deaths from all other causes, children under 5.

a weakened condition, ill prepared to withstand and overcome the toxemias so liable to occur in the summer months. A close watch has been kept of the deaths to enable us to form some opinion on these points. Careful observation has failed to show increased mortality traceable to continued high temperature or humidity. The highest temperature and humidity of recent years in this latitude was in 1901, and the infant mortality during that summer was the lowest of which we have any record. The deaths apparently increase after rapid and frequent changes in temperature and are most frequent after a sudden drop in temperature following a heated term.

An epidemic of measles in the late winter or early spring seems to predispose to an increase in the number of deaths from digestive diseases in the following summer months. The same is true of whooping cough, but to a larger extent. In the case of scarlet fever and diphtheria no observations have been made, these diseases being endemic in recent years. As comparatively few cases of measles and whooping cough are reported to the board of health, these observations can not be put into figures.

The statistical summaries now presented will show the results accomplished in Yonkers. They cover a

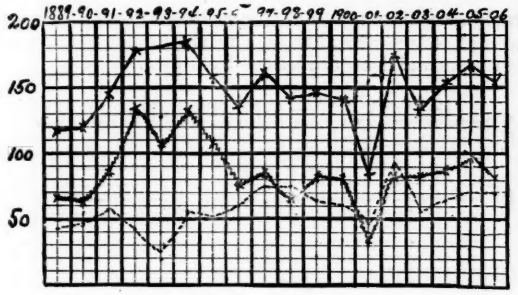

Chart 6.—Death statistics, 1889-1906, for June, July, August and September. Solid line, deaths children under 5 years from all diseases; wavy line, deaths children under 5 years from digestive diseases; dashed line, deaths children under 5 years from other diseases.

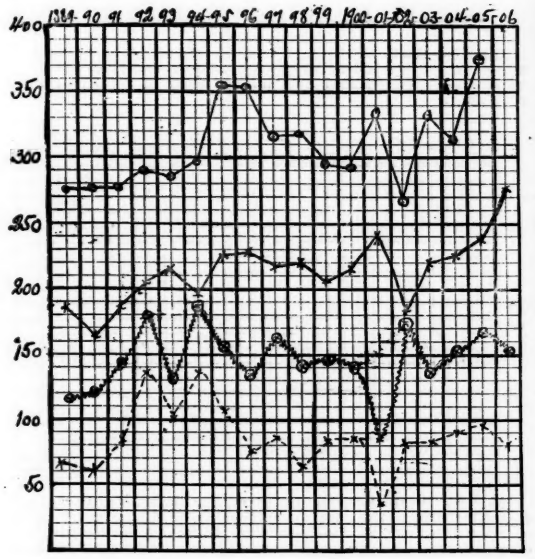

Chart 7.—Death statistics, 1889-1906. Upper solid line, total deaths children under 5 for whole year; lower solid line, total deaths infants under 1 for whole year; wavy line, deaths children under 5 for June, July, August, September; dashed line, deaths children under 5 for June, July, August, September, from digestive diseases.

period of eighteen years, from 1889 to 1906, inclusive, and have been averaged in four periods, three of five years each and one period, the last, covering three years. The first period represents the five years preceding the establishment of the milk dispensary; the last three periods, thirteen years in all, are the years the milk dispensary has been in operation.

Chart 1 shows a decrease of the total death rate from

19 per 1,000 to 15.8 per 1,000. The death rate of children under 5 has decreased from 80 per 10,000 of the total population to 58 per 10,000, and among infants under 1 year from 59 per 10,000 to 40 per 10,000 of the total population. There has been a decrease in the total death rate of 32 per 10,000, and 22 per 10,000 of the decrease has been among children under 5 years and 19 per 10,000 among infants under 1 year. That is, about 70 per cent. of the decrease in the total death rate has been among children under 5 years, and most of this decrease is among infants under one year.

In Chart 2 the deaths of children under 5 years, occurring during the months of June, July, August and September from 1889 to 1906 inclusive, have been averaged in the same manner as in Chart 1. The deaths have decreased from 41 per 10,000 of the total population to 25 per 10,000, and the deaths from digestive diseases show a decrease from 29 per 10,000 to 14 per 10,000, a fall of over 50 per cent. Of the decrease of 22 per 10,000 of total population shown to have occurred in the mortality of children under 5 years 16 per 10,000 has occurred in the four summer months and 15 per 10,000 from digestive diseases in these months. More than two-thirds of the total decrease in mortality noted in children has occurred in the four summer months and among diseases of one class—digestive disorders.

Chart 3 shows the average number of children under 5 years living in Yonkers at the various periods, estimated on the basis of the United States census of 1890 and 1900.

Chart 4 is based on these estimates and shows a decrease in the death rate of children under 5 years from 75 per 1,000 to 47.5 per 1,000, and a decrease among infants under 1 year from 250 per 1,000 to 147.5 per 1,000.

As shown by Chart 5, the deaths among children under 5 years in the four summer months have decreased from 38 per 1,000 to 21 per 1,000. The deaths from digestive diseases have dropped from 27 per 1,000 to 11 per 1,000. The decline in the death rate of children under 5 years, as shown by this table, is abrupt and striking, and especially among those dying from digestive diseases, the decrease being more than 60 per cent. The deaths from all other causes have decreased but 1 per 1,000.

Chart 6 shows graphically the large excess in the first period of deaths from digestive diseases during the summer months over all other causes of death and the rapid fall in the deaths due to digestive diseases after the establishment of the milk dispensary, and the approximation of deaths from digestive diseases to the deaths from all other causes.

In Chart 7 the total number of deaths among children under 5 years are shown as occurring each year, also the deaths of infants under 1 year, and the lower line gives the total number of deaths of children under 5 years for the months of June, July, August and September for the same years. The two upper lines ascend gradually, somewhat in keeping with the growth of the city, which has more than doubled its population in the last eighteen years. It will be noticed that the deaths of children in the summer months have not increased, notwithstanding the growth of the city.

The claim made ten years ago that a reduction of 50 per cent. had been effected in the deaths of children from digestive diseases has been more than substantiated; furthermore, the saving of life in the summer months has reduced the death rate of the city 15 per 10,000 as compared to a reduction of 17 per 10,000 from all other diseases at all ages and during the whole twelve months. In other words, half of the reduction in the mortality in Yonkers was effected in the four summer months from one class of diseases and among children under 5 years of age.

If the death rates of 1889 to 1893 had prevailed in the summers of 1906 and 1907 there would have been an increase in the number of deaths of children from digestive diseases of 108 and 101 respectively, a good showing for four months in a population of 70,000.

We firmly believe the measures adopted in Yonkers to reduce infant mortality were the means which produced the results, and we are of the opinion that the most effective of the means adopted was the establishment of the milk dispensary. Taken as a whole, the value of the work in Yonkers has been educational, and here is where much of its success lies. It has been impossible to feed all the bottle babies or even a large proportion of them—the largest average number fed was something over 200. The seed was planted by the milk dispensary and it has taken root and grown. To conduct a campaign successfully as planned in Yonkers requires enthusiasm, dogged perseverance and intelligence, and my opinion is that if we had injected more of these qualities the results would have been greater.

One word about pasteurized milk. We have always looked forward to the day when public opinion would demand a milk which would not require pasteurization, and we fully believe it to be almost at hand. For the children living in the tenements pasteurization and proper modification will always be necessary, as the mothers often are busy, and more often are ignorant and can not attend to many details, so that the cleanest milk becomes contaminated in the hot tenement. Consequently the milk dispensary has an established place in all cities where efforts are being made to reduce infant mortality from digestive diseases.

The milk dispensary of St. John's Riverside Hospital has been placed on a permanent basis, this summer having been moved to a building especially constructed for its use and a strong committee organized to conduct it.

CONCLUSIONS.

The problem of reducing infant mortality from digestive diseases in cities can be summed up in a few words. Clean milk, properly proportioned, for those infants and young children who can not be fed on the breast, and intelligent care and feeding by the physicians and parents. To produce these results we would suggest the following as the necessary means:

First.—Rigid state or municipal inspection of all milk from the producer to the consumer.

Second.—Milk dispensaries properly to modify clean milk in feeding bottles ready for use. The milk may be pasteurized if it is to be used in the tenements.

Third.—Campaign of education to instruct both physicians and parents in the art of infant feeding and urge on the officials the necessity and economic value of clean milk.

Fourth.—Employment of trained nurses in the summer months to follow up cases of digestive disturbances in infants and to aid physicians in their work.

Fifth.—The continued improvement of tenement houses so that the dwellers may have the benefits of proper sanitation and plenty of fresh air and sunlight.

84 Ashburton Avenue.

ADIPOSIS DOLOROSA.

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SAN FRANCISCO.

Since the original papers of Dercum (1888, 1892) only about 45 cases of adiposis dolorosa have been recorded in the literature. It is rather difficult to make a complete study of these cases, for some of them are doubtful and some are reported too briefly. The rare occurrence of this condition and the haze which still surrounds it prompts me to report the following case from the City and County Hospital, service of Dr. J. O. Hirschfelder, to whose kindness I am indebted for the opportunity to study the patient:

Patient.—Mrs. M. E. F., housewife, was born in Ohio, 77 years ago. The family history is negative as to tuberculosis, cancer and alcoholic excesses. The father, at the age of 35, was insane for six weeks on account of business troubles; he recovered completely and died at the age of 75 years. One of three brothers was paralyzed in the legs for one year; he has gradually recovered, though not entirely.

History.—Patient married at 24 years and lived with her husband, who said he had had syphilis twenty years. Six weeks after marriage, a rash appeared and later the hair on her head feel out in patches. She has had five children, all living and well. There was one miscarriage before the first child was born. Menstruation began at 14 years. The periods were always regular, lasted eight days, and were never painful. Excessive amounts of blood were lost. The menopause began at 62 years, and continued without any symptoms. Sexual indulgence was excessive. The patient's habits are good. She has worked hard and does not use alcohol. She had mumps and measles when a child, malaria twice. About two years ago she had rheumatism (?) in the legs without joint enlargement. She says that one year ago she had an attack like the present one, when her arms became numb. This lasted three days. These numb spells would come on for an hour or two occasionally.

Present Illness.—At present she complains of pain in the neck, lower back and feet. There is a feeling of general lassitude and her arms and legs feel heavy, and occasionally numb. There are painful areas on the legs on pressure. She has had palpitation for years, and is somewhat short of breath at times Her feet have been swollen twice. She voids urine once or twice at night. Three weeks ago the present trouble began with headache and vomiting. She would vomit several times a day, with no preceding nausea. The vomiting was projectile in character; only occasionally after these attacks would she feel sick. This lasted several days, and then gradually stopped one week ago. She complained of a severe, dull headache all the time—it seemed to be worse on the top of the head. The patient is very forgetful; she can not think of the word she wishes to use. Her eyesight has been failing during the last five years.

Examination.—The patient was in a stuporous condition, apathetic. She could raise herself in bed. She was found to be well-developed, poorly nourished, slightly cyanotic and dyspneic. The skin is cool and dry. The movements of the eyes were normal, and the pupils equal; they reacted to light and accommodation. There was no paresis of the muscles of head or face. The tongue was dry, red and coated, the papillæ were enlarged toward the tip; there was a granular condition of the soft palate and pharynx. The cervical glands were slightly enlarged; the thyroid was palpable and the middle lobe was enlarged. The vessels in the neck pulsated. There was enlargement principally downward and outward of the area of cardiac dulness. Loud systolic murmurs could be heard at the apex and were transmitted to the axilla; they were also heard over the aortic area and were transmitted upward. The pulse was irregular in force and rhythm; the pressure was low. The chest was well-formed; the lungs were negative. There was no enlargement of the liver; the spleen was not palpable. The abdomen was very pendulous, with a thick fatty wall of jelly-like consistence. The inguinal and epitrochlear glands were not enlarged. There was slight edema of the feet and legs. The knee jerks were present; the plantar reflex was lively with flexor response of big toe. The abdominal reflex and the reflexes of the upper extremities were not present. No tenderness was found over the nerve trunks. Owing to the condition of the patient's mind great difficulty was experienced in obtaining results in testing sensation; however, there seemed to be an hypesthesia, principally of the arms and legs, though the trunk was also involved. The localizing sense was good; co-ordination was good; the stereognostic sense was not much impaired. An examination of the background of the eyes and of the field of vision could not be made on account of cataract in both eyes. The special senses were otherwise unimpaired. Around both legs, just above the malleoli was a cuff of fatty tissue about 6 cm. wide and 3 cm. high, which was rather painful on pressure. The fat was of firm consistence, and on palpation gave the impression of a mass of worms. On the inner sides of the knees and thighs there were large deposits of fatty tissue, painful on pressure. Large masses of fat, not so tender as the preceding, were found on the outer sides of the thighs and gluteal regions. The abdominal fat deposits were diffuse and only moderately sensitive. When the upper arms were raised a flap of diffuse fat hung from them; they were also sensitive on pressure. There was a large ecchymotic spot on the outer side of the right arm where pressure was used in raising the patient. All the muscles of the body seemed atrophied. The muscular power was much diminished; dynamometer, right, 30; left, 20. Patient could not raise herself to a sitting posture in bed.

Blood Examination: Hemoglobin, 75 per cent.; red cells, 4,700,000; white cells, 9,500. Differential count: Polymorphonuclears, 68 per cent.; small mononuclears, 23 per cent; large mononuclears, 7 per cent.; eosinophiles, absent; mast cells, 2 per cent.; coagulation time, 2 minutes and 10 seconds.

Urine: Sp. gr., 1.020, acid; albumin, 1 per cent.; no sugar. Microscopically, a few granular casts and pus cells were found.

Treatment.—The patient was given 5-grain thyroid tablets, one tablet three times daily. There has been marked improvement. The mind has become much clearer and she is now able to sit up in a chair. The masses of fat have diminished considerably in size and have become softer and less painful to pressure. Other measures such as diet, massage and hydrotherapy were not resorted to.

ETIOLOGY.

Cases of adiposis dolorosa have occurred in families. Cheevers[1] reported a case in a male whose father and sister both had the same disease, and Hammond[2] reported two cases occurring in sisters. Women are affected much more frequently than men. A collection of the cases in the literature[3] which was accessible showed the ratio to be about six women to one man. The age of onset is variable, the youngest patient being 12 years old and the oldest 78 years. The majority of cases in men occur between the ages of 30 and 40; in women between 30 and 50 years. Neuropathic and alcoholic personal or family histories have been noted, while syphilis and trauma figured in a few cases. Disturbance of the sexual organs, such as excessive menstrual flow and uterine hemorrhage, have frequently been found. Spiller's case dated from pregnancy, while Schlessinger's case occurred after an abortion. The menopause seems to predispose to the disease.

PATHOLOGY.

Only five autopsies are recorded in the literature at my disposal. In these, as well as in a few in which

1. Brit. Med. Jour., 1904, i.
2. Brit. Med. Jour., 1904, ii.
3. The following articles may be of interest in addition to those referred to elsewhere: Weiss: Centrlb. f. d. Grenzgeb. Med. et Chir., 1904, vii. Gordonier: Vermont Med. Monthly, 1903, ix. Marcou: Archiv. Gen. d. Med., 1903, ii. Ballet: Presse Méd., 1903, i. Hall and Walbrach: Am. Jour. Med. Sc., 1904. Schwenkenbecher: Deutsch. Archiv. f. klin. Med., 1904, lxxx. Debove: Archiv Gen. de Med., 1903, ii. Fulconis: Thesis, Lyons, 1904. Fuchs: Wiener klin. Wochschr., 1905. Wingate: Wisconsin Med. Jour., 1905, iv, 6.

small portions of tissue have been excised, the fatty tissue is of normal structure. In one of Dercum's patients there was an interstitial neuritis, with a moderate sclerosis of the columns of Goll. The sclerosis, in all probability, was a concomitant affection. The most constant lesions appeared in the thyroid gland, which was enlarged and calcareously infiltrated in two cases, was partially atrophied in two cases, and was normal in one case.

The other important and significant lesions were found in the pituitary body, which was abnormal in three of the five cases. There was enlargement and gliomatous degeneration in two cases, and adenocarcinoma in one.

It is of some interest to compare the condition of the thyroid and pituitary body in adiposis dolorosa and acromegaly.

		Cases.	Normal.	Abnormal.
Adiposis Dolorosa:	Thyroid.....	5	1	4
	Pituitary	5	2	3
Acromegaly:	Thyroid.....	24	5	19
	Pituitary	34	0	34

Clinically, adiposis dolorosa is a disease characterized by four cardinal symptoms: (1) The accumulation of fat, usually localized; (2) pain and tenderness in the fatty swellings; (3) asthenia, and (4) psychic disturbance.

The abnormal deposition of fat may be nodular, diffuse but circumscribed, or generalized diffuse. It may vary in consistence from rather soft (pultaceous) to firm; the latter variety, on palpation, sometimes giving the impression of a mass of closely intermingled worms. These masses are usually symmetrical, but may be irregular in size and distribution. The face, hands and feet are not involved. The lipomatosis may be preceded, accompanied or followed by the pain; usually they occur synchronously, though occasionally the lipomatosis may precede the pain by years.

The pain may be spontaneous, or caused and increased by pressure and movement. It may be sharp or dull, and is described as neuralgic or rheumatic. It does not follow the course of the nerves, and is seldom constant. It may be paroxysmal in character, and is sometimes dependent on movement, excitement, digestive disturbances, insomnia and changes in the weather.

The asthenia is variable; it may be very marked. There is no reaction of degeneration in the muscles, and there are no paralyses. In a majority of cases, the knee jerk and tendon reflexes in general are diminished or absent. The psychic phenomena consist in marked apathy and depression, great irritability and occasionally dementia.

Other symptoms include headache, disturbance of sensation, paresthesia and usually an hypesthesia to touch, pain and temperature. Lessened perspiration is the most common and important of the vasomotor phenomena; though cyanosis of the extremities, ecchymoses, trophic ulcers, dermographia and vesicles on the palms and soles (during attacks of pain) may occur.

The disease is rarely fatal and death is due to some intercurrent affection. Exacerbations occur in the form of paroxysms of pain and increase in size of the fatty accumulations which become more firm. After the paroxysm, the pain lessens in severity and the masses decrease in size; however, there is always a permanent increase of the fatty deposits after each exacerbation.

My case is typical and could be classified as of the mixed form: that is, localized (diffuse) and generalized (diffuse). The asthenia was very marked and striking, while the psychic phenomena consisted in an apathy, with occasional short periods of irritability, the "causeless quarreling" of which Dercum speaks. The pain was usually described as "rheumatic," though at times the patient complained of "neuralgia." Pressure over the fatty deposits always caused pain, more or less severe.

The lack of perspiration, the later development of a small bed-sore, and the ecchymoses resulting from slight injuries were the lesser symptoms which occurred. Unfortunately, the history was obtained with great difficulty, and the time and sequence of the occurrence of the different symptoms is unknown.

SUMMARY.

If we compare the incidence of sex in patients affected with obesity, adiposis dolorosa and diseases of the thyroid gland, such as myxedema and exophthalmic goiter, we find that the disproportion between the two sexes in the incidence of obesity is not at all comparable to the disproportion which occurs in adiposis dolorosa, exophthalmic goiter and myxedema; the figures for the three last named diseases showing a striking similarity, as follows:

	Men.	Women.
Obesity	1	2
Adiposis dolorosa	1	6
Exophthalmic goiter	1	4.6
Myxedema	1	6

That the thyroid is involved in adiposis dolorosa is evidenced by the pathologic findings (atrophy, hypertrophy), and the presence of myxedematous symptoms, such as a lack of perspiration, and changes in the skin. The psychic condition (apathy) is also similar to that in myxedema, while the positive therapeutic results with thyroid extract should likewise be considered. From his study of adiposis dolorosa, von Schroeter concludes that it is a "dysthyroidismus," while Pineles considers the disease an expression of disturbed function of "numerous blood glands, including 'hypothyroidismus,' genital atrophy and changes in the hypophysis." In regard to the disease being due (among other causes) to hypothyroidismus, the concomitance of exophthalmic goiter would indicate that the cause is more of a dysthyroidismus than a hypothyroidismus; that is also suggested by the fact that in cretins (hypothyroidismus) there is an atrophy of the thyroid and genitals with no symptoms of adiposis dolorosa.

That the genitals are a factor in producing the disease can only be proved by further study. It would be rather interesting in the light of later knowledge, to investigate particularly the condition of the genital organs. Billings[4] patient was sexually impotent two years preceding the onset of the disease, while in Staley's[5] patient the ovaries had been removed some time previously. However, significant symptoms and facts are: (1) Excessive menstrual flow; (2) uterine hemorrhage; (3) early menopause; (4) commencement of disease at menopause; (5) exacerbation following abortion; (6) inception of disease at delivery.

In conclusion I would suggest that adiposis dolorosa, like acromegaly, is a dystrophy, the one affecting the fatty, the other the osseous structures; and that there is present a toxemia dependent on a dysthyroidismus and the disturbed function of the pituitary body and the genital organs.

4. Illinois Med. Jour., April, 1903.
5. Brit. Med. Jour., 1905, I.

EPIDIDYMITIS AND ORCHITIS COMPLICATING TYPHOID.*

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PHILADELPHIA.

Among the unusual complications and sequellæ of typhoid fever, epididymitis and orchitis are always of interest, and their comparative rarity is sufficient excuse for recording additional cases. That these conditions are infrequently seen can not be doubted, but that they are as rare as the statements in the text-books and in the reviews of current literature would lead us to believe is open to question.

As in other infectious diseases, notably parotitis and variola and to a less extent in pneumonia, inflammatory affections of the testicle and epididymis occur in typhoid fever, or more often, during convalescence from this disease.

Three of the cases reported in this paper were under my care, while the fourth case occurred in the practice of another physician.

CASE 1.—The first case was seen in the practice of Dr. Philip Marvel, of Atlantic City, and occurred in a young man, 19 years of age, who was convalescing from a mild attack of typhoid fever. The complication occurred three weeks after the patient's temperature had become normal and after he had been sent from a distant city to Atlantic City to convalesce. While on the Boardwalk, in a wheel chair, the patient was suddenly seized by a severe chill and severe pain in the groin. When first seen, he was complaining bitterly of pain in the region of the scrotum, and his temperature was 102 degrees.

An examination revealed a slightly swollen left testicle and a sensitive spermatic cord and epididymis. A few hours later the patient had another chill, less marked than the first, but during which he vomited freely. At this time there was a marked increase in the size of the left testicle, and the epididymis was also swollen. The condition subsided after three days, and the testicle resumed its ordinary size. Slight induration was felt in the epididymis when the patient was examined three weeks later. The patient denied any history of gonorrhea. There was no history of trauma, but the patient had had a well-marked parotitis as a child, with a left-sided orchitis.

CASE 2.—This case was also seen in Dr. Marvel's practice. The patient was a colored man, aged 24 years, who consulted me because of a swollen testicle. The patient stated that when the testicle first enlarged, four weeks before, he had a marked chill, and the pain in the testicle kept him in bed some days, but no physician was consulted. On examination, I found the right testicle was twice the size of the left and tender to the touch. The epididymis and spermatic cord were not involved at this time, but the patient stated that at the beginning of the trouble the scrotum was red, puffy and extremely painful. On questioning the man, I found that he had been discharged from a hospital in Baltimore six weeks before, having had a moderately severe attack of typhoid fever.

The patient admitted that he had had gonorrhea many years previously. He had no urethral discharge at this time, and there was no history of the possibility of an infection in some weeks.

Under treatment, the size of the testicle was reduced slightly, but when last seen, about two months after the original trouble, the testicle was still enlarged.

CASE 3.—This patient, seen at the out-patient department of the Jefferson Hospital, was a man, 36 years of age, who came to the dispensary for treatment for a swollen leg. We found that the patient had been discharged from a New York hospital three weeks before after suffering a severe attack of typhoid fever, during which he had many cold baths and was kept in bed seven weeks. A few days after his discharge he noticed a pain in his left groin, and he had a chill and was nauseated. He went to bed and remained there a week, during which time his left testicle became enlarged and painful.

On examination we found that the left testicle was twice the size of the right and tender. The left leg was somewhat edematous, and there was pain on pressure along the course of the internal saphenous vein. The man was to enter the hospital for treatment, but disappeared and was not seen again.

CASE 4.—This case occurred in the practice of Dr. C. K. Kistler, of Reading, Pa., through whose courtesy I am allowed to report it. The complication occurred in a young man, 27 years of age, during convalescence from a moderately severe attack of typhoid fever. Two weeks after the patient's temperature had become normal there occurred a chill, following which the left saphenous vein showed a marked phlebitis, and two days later there was a marked orchitis, the left testicle becoming three times as large as the right. The epididymis and spermatic cord were also slightly involved, and there was effusion into the tunica vaginalis testis. The patient recovered in two weeks, but when seen, two months later, there was still some enlargement of the testicle and the epididymis was slightly indurated. No history of venereal infection was obtainable, and there had been no trauma.

In the literature on this complication, orchitis and epididymitis are considered together for, although either may occur alone or preceding the other, as a complication of typhoid fever the association of the two conditions is so frequent as to render their separation unnecessary. The earliest record is in the writings of Velpeau, in 1844. He alluded to the fact that at the close of certain grave fevers, such as typhoid, variola, etc., acute orchitis, without demonstrable cause, was sometimes seen. Beginning with the report of Chedevergne, in his Paris thesis, in 1864, we find scattered through the literature isolated instances of this complication, and occasional reviews of a serics of cases. Sadrain, in 1883, collected sixteen cases, and later in the same year Ollivier reported twenty-four cases, with three from his own observation. Wescott, in 1898, collected thirty-two cases for Keen's monograph on the surgical complications of typhoid fever, while Eshner, who gave the subject the most careful review, was able, in the same year, to find forty-four cases in the literature and to add one case of his own. Since this time Kinnicutt has reported two cases and has given references to several other cases, while Blumenfeld, in his Paris thesis, for 1905, reviews the entire literature up to that date, and, adding the case under his care, increased the number of reported cases to sixty-nine. Adding a few cases, which were overlooked, to those which have been reported since Blumenfeld's report, in 1905, I have been able to collect 102 cases.

It is difficult to understand why there have been so few cases reported, for inquiry among physicians of experience reveals the fact that the condition is considered by no means rare, while a continued inquiry also reveals the fact that although cases have been seen by many men they were not reported, or if so, were simply mentioned in a discussion where other complications were receiving attention. Failure to report the cases seen, then, is the first reason for this complication being considered a rare one. The second reason, and to my mind quite as important as the first, is the popular misconception as to the cause of these complications.

For many years, in fact, until recently, when orchitis or epididymitis occurred during or following typhoid fever the true cause was not, as a rule, known, and various reasons were ascribed for the appearance of the

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condition. The most popular theory was that the complication was due to a pre-existing gonorrheal infection, and this view was strengthened by the knowledge that not infrequently there was at the time of the complication a urethal discharge, and at times the patient complained of burning pain on urination.

Next in favor was the traumatic theory, and, in many instances slight traumatisms, such as injury by contact with a urinal or bed pan, or injury of the genital tract during catheterization, was held accountable for the production of the condition. Other theories advanced were that the condition was caused by masturbation during convalescence from typhoid fever, or, as was sometimes stated, that the condition was brought about by a "rheumatic" condition of the blood. Schottmueller, in 1902, was the first to point out and to prove conclusively that typhoid fever was primarily a septicemia, and since this date the abundance of proof as to the truth of his statements has brought about a general adoption of the view that typhoid fever is a general infection, and this has been repeatedly proved by research work with blood cultures, which reveal the presence of typhoid bacilli, even as early as the third day of the fever and apparently without regard to the severity of the attack. Not only have the investigations revealed that typhoid bacilli enter the circulation in the great majority of typhoid fever cases, but it has been proved that in 30 per cent. of the cases the bacilli are eliminated by the urine, while the bacilli are isolated from the stools in at least 20 per cent. of the cases.

With the knowledge derived from these important investigations it is much more easy to explain why orchitis and epididymitis occur. Bacilli reach these organs both by the blood stream and through the urethra by way of the vas deferens. It is probable that the blood stream is the mode of infection in the majority of cases, but now that we know how often bacilluria exists, we must consider the possibility of the infection by way of the vas deferens, and in one patient, reported by Kinnicutt, the course of the disease could be watched in the cord, the disease eventually involving the epididymis and testicle.

Thrombosis of the spermatic veins has been held accountable for the complication in certain cases and in several cases the condition has been complicated by phlebitis of the saphenous veins. This last theory was advanced by Widal, and supported by Hutchinson, while Gwyn more recently reports a case which appears to support this theory, and he thinks that many of the cases of orchitis in which there is little pain are due to phlebitis of the veins of the tesicles.

A brief analysis of this series of 102 cases shows that the complication occurred during convalescence following typhoid fever in 71 instances, and during the fever in but 17, while no note of the time of occurrence was made in the remaining 14 cases. In 37 cases the right side was affected, in 27 the left. In three cases the complication was bilateral, while in 35 instances no note was made as to side affected. There were 43 instances in which both the testicle and epididymis were involved; the testicle alone being involved 31 times and the epididymis alone 10 times; while in 18 the conditions were not differentiated. In a number of cases the cord was also involved. Suppuration occurred in 22 of the 102 cases and in many of these there was loss of testicular tissue and subsequent atrophy. It was noted that there was an effusion into the tunica vaginalis testis in 13 cases, and in six cases a urethral discharge was seen, while in several other cases an examination of the urine revealed the presence of mucus and pus.

The onset of the complication was, as a rule, abrupt, coming on while the patient was still in bed or shortly after leaving his bed, and was marked in the majority of cases by an acute pain in the region of the testicle or in the groin, when the pain was radiating in character and involved the testicle. The onset was not infrequently marked by chilliness or by a severe chill, and sometimes the pain was so severe as to cause vomiting. Following the initial chill and pain there was usually a rise in temperature, acceleration of the pulse and a feeling of general wretchedness. In many cases the patients complained of a sense of weight in the testicle and the scrotum was often red, swollen and edematous, while not infrequently an acute hydrocele developed. Pain on urination was complained of quite frequently and catheterization was necessary in one or two instances. There was no apparent relation between the severity of the initial illness and the occurrence of the complication, which attended the mild and moderately severe cases as frequently as it did the grave cases of fever. The complication occurred most frequently in youth and young adults, but the complications were seen in a child of 4 years and in a patient 78 years of age.

Kinnicutt and Gwyn have called attention to the fact that a sudden acute pain in the abdomen may be due to thrombosis of the mesenteric veins, and in one of Kinnicutt's cases the infection of the epididymis evidently originated in the cord above Poupart's ligament for the process could be traced downward to the testicle, the epididymis being affected 48 hours after the cord was palpable. In Gwyn's case there was sudden pain in the region of the appendix, and only later was the discovery of the enlarged testicle made. The implication of the cord suggests, as pointed out by Kinnicutt, an original infection either of the vas or of the spermatic veins, producing phlebitis with a thrombosis and secondary implication of the vas deferens by contiguity. The nearly simultaneous development of a phlebitis of the internal saphenous vein, which is a condition not infrequently accompanying these complications, suggests the possibility of certain cases being due rather to a phlebitis of the testicular veins, as suggested by Gwyn, than due entirely to bacterial invasion.

The prognosis for life is good and the disease being usually unilateral there is little complaint of loss of function. The complication lasts from a few days to a week, but when suppuration takes place convalescence is much delayed. Incision and free drainage, as a rule, soon give relief, although induration of the testicle and epididymis following convalescence is frequent.

The treatment consists in, first, support of the organs by well-fitting suspensory and the local application of cold. Opium or its derivatives may be given if necessary to control pain. If the inflammation does not subside and suppuration threatens, then the ice bag should be replaced by hot applications. If pus forms, incision and drainage is indicated. Very rarely the complete or nearly complete disintegration of the organ will necessitate its removal.

CONCLUSIONS.

1. Epididymitis or orchitis, occurring during typhoid fever or during the convalescence from this disease, is a comparatively rare complication, and in the majority of cases is due to infection by Eberth's bacillus.

2. These complications may be caused by other pus producing bacteria, but this is unusual.

3. The conditions may also be caused by phlebitis and thrombosis of the testicular veins, the etiologic factor being the same (*Bacillus typhosus*). These complications may occur during the course of the disease, but they are far more likely to occur during convalescence.

4. Although the lesion, as a rule, is unilateral it may be bilateral, and it may involve either the epididymis or testicle, or both, and not infrequently the cord as well.

5. Effusion into the tunica vaginalis testis is seen occasionally and there may be a urethritis with urethral discharge. Localized necrosis and suppuration, with extrusion of the testicular substance is an uncommon termination, the usual termination being resolution, in a week to ten days.

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FOREIGN BODIES IN THE LARYNX.

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A review of the literature on foreign bodies in the larynx reveals the fact that the subject has been much slighted by the authors of leading text-books, nor do medical journals furnish satisfactory summaries of cases seen in hospital or private practice, the technic of the removal of such foreign bodies, the complications or the final results obtained. Just why so important a condition should be so inadequately dealt with is not easy to explain, unless it is on the hypothesis that everything has been said on the subject.

The history of cases of laryngeal obstruction shows that this condition is usually the result of the accidental entrance into the laryngeal cavity, by way of the mouth, of foreign bodies, such as buttons, screws, false teeth, pins, etc., held in the mouth in play by children, or for convenience by adults; pieces of bone, meat or other food, which have found lodgment while the patient has been eating; clots of blood that have found entrance during the performance of surgical operations on the nose or throat; small tumors or abscised tonsils, the removal of which has indicated such operative procedures; or intubation tubes which, by reason of improper introduction, have themselves acted as foreign bodies instead of affording the relief for which they were put to use. In one case death followed the impaction of the epiglottis from direct violence.

It is surprising to contemplate the varying intensity of the symptoms in these cases. A man under my observation, while eating dinner, had the misfortune to get a bolus of meat lodged in his larynx and died before I could reach him, though I was in the building at the time.

Fischer reports the case of a child who, while holding in his mouth a pepper-corn transfixed by a pin, by some means let it drop into the larynx. There it remained for three and a half years embedded in the right ventricular band, causing no pus formation and but little reflex disturbance. Larkin reports the case of a man who had a piece of bone lodged in his larynx for three days. He died of ulceration and edema of the glottis.

During the last few years a number of persons have come to this city from considerable distances with sandburs between their vocal cords, some of which had been there several days without producing very immediate danger.

As shown above, the symptoms of a foreign body in the larynx may vary considerably. Nor does the nature of the offending substance or its exact situation seem greatly to be responsible for this variation in the amount of inflammation and reflex phenomena which it may excite. Aphonia may be the only sign, as in the case of a child who had a safety-pin lodged in the larynx for six months without other signs of its presence, which, in fact, was not suspected. Commonly, however, there is a sense of irritation, or even pain in the throat, and more or less difficulty in respiration, which may be due either to the size and nature of the foreign body, to laryngeal spasm or to edema of the glottis.

The mode of dealing with the case naturally varies according to the nature of the foreign body, the age of the patient, the amount of swelling of the laryngeal structures, which may be present, and the urgency, which may demand the most rapid measures to prevent immediate death.

The first indication is, of course, to remove the foreign body from the larynx as expeditiously as possible, at the same time keeping in mind the necessity of preventing reflex spasm of the glottis, and of avoiding the production of more traumatism than may already have been produced.

In most cases either a local or a general anesthetic may be used. If the patient is not too young we may generally use cocain for local application. for anesthetizing the larynx I do not consider a 20 per cent. solution in adrenalin chlorid too strong, as the adrenalin acts with the cocain in reducing the amount of congestion and edema, it increases the anesthetic effect of the cocain and diminishes the amount which may be absorbed into the circulation, a feature, by the way, of some importance in cases where the proper oxygenation of the blood has been interfered with by the obstruction to respiration, which may have existed for some time. Local anesthesia having been produced, we may, by indirect or direct laryngoscopy, obtain a view of the larynx and its contents, note the exact situation of the foreign body and the amount of swelling or other pathologic condition which may be present.

This having been accomplished, we are now in a position to attempt the removal of the foreign body. I would emphasize the word attempt, for the ease with which a novice may at times remove a button, thimble or other article from the larynx, contrasted with the difficulty encountered at times by the expert of long experience, should excite our sympathy for the future heartaches of the former, which are sure to come, as well as our generosity toward the painstaking failure of the latter. Indeed, the manual dexterity necessary to the would-be successful laryngologist is great. In this class of cases there are four factors which militate against our success: The security of lodgment of the foreign body; the amount of swelling, which may make its location hard to get at; the reflex cough, which at times persists after the most thorough cocainization and which causes us to desist from our efforts at the removal of the body just as we are about to grasp it with the forceps, and the unsatisfactory nature of the various instruments so far devised for such procedures.

The clumsy design of the majority of laryngeal forceps would almost lead us to suspect that the instrument-maker had in mind the idea that they were to be used for the extraction of the larynx itself instead of some small article lying more or less loosely within the margins of the ventricular bands or piercing the car-

tilaginous walls of the larynx. In fact, with some of the so-called laryngeal forceps it would be an absolute impossibility to see both the foreign body and the blades of the forceps. Then, too, many of these instruments are so devised as to make the control of the wrist wholly responsible for this most delicate manipulation, when, in fact, the operator should be able to direct the movements of his forceps entirely with his fingers and with the greatest ease.

A recent writer in THE JOURNAL states that where a sand-bur is lodged in the larynx it may easily be removed by entangling its spinous processes in some cotton wound about a bent probe. Inasmuch as I succeeded in doing this for a patient over two years ago, and utterly failed in a similar case a few weeks ago, the deductions from my limited experience are that he is, at least, half right. At any rate, this very practical expedient is well worth a trial if the sand-bur is situated far enough forward or back to pass the end of the probe under it without the danger of pushing the bur down into the trachea.

The administration of a general anesthetic does not entirely preclude the superior route for the introduction of instruments calculated to aid in grasping the foreign body; in fact, in a few cases it is a positive advantage, as the reflexes are abolished; but great care is necessary and the cases must be selected carefully. However, the urgency of the case or the impossibility of removing the body by these methods may compel us to adopt other procedures.

When some large body, such as a bolus of food, has entered the larynx and there is danger of immediate death, we are warranted in introducing our fingers into the patient's mouth at once and attempting to hook out the foreign body with the forefinger. This has been done successfully, in one case by a nurse, who by his timely intervention saved the patient's life.

Laryngotomy or tracheotomy is indicated where the foreign body can not be extracted by other means, or where it is necessary to act at once in order to save the patient's life. This may even be done with an ordinary penknife, on the street or at the table, if the anatomic relations of the parts are considered. In fact, I believe in some instances laryngotomy is delayed too long. After placing the patient in the tracheotomy position, make a single stab wound through the cricothyroid membrane, or, if time permits, dissect back the tissues covering the anterior angle of the thyroid cartilage, carefully make a transverse incision through the cricothyroid membrane, and then with a blunt-pointed bistoury divide the thyroid cartilage from below upward nearly to its superior border in the median line. The advantage of not cutting entirely through the thyroid cartilage is that its partial continuity at the upper border permits of more exact approximation for the purpose of repair.

The division of the thyroid cartilage having been accomplished, a retraction of the two wings enables one to look directly into the larynx and to introduce forceps with which to grasp and extract the foreign body. The margins of the divided thyroid cartilage are sutured together with chromicized catgut or other material. The external wound is then closed.

The use of the probe-pointed bistoury allows the surgeon to pass the blade of the knife directly upward between the vocal cords without injuring them, and this will cause the line of section to occur between their anterior attachments.

Following the extraction of a foreign body from the larynx, it is my practice to put the patient to bed for a day or two in a warm atmosphere kept moist by some form of vaporizer, to maintain cold compresses over the larynx for twenty-four hours or until symptoms of edema, if present, abate, and to forbid the use of the voice for at least forty-eight hours. Where laryngotomy has been performed the voice should not be used at all for some weeks, as the healing process in cartilage is a slow one and is not to be favored by attempts at phonation, which put the vocal cords on the stretch. In a case in which I recently performed this operation for the removal of a sand-bur there was almost no bleeding, the external wound healed nicely, there was no postoperative spasm or edema of the glottis, and the patient can now use his voice some, although I do not know just how much, as I am still keeping him from using his voice as much as I can.

What deductions, if any, can we make from the cases cited and the statements made?

1. In every case of aphonia search for a foreign body should be instituted.

2. There is great variation in the symptoms and pathologic results of foreign bodies in the larynx.

3. A careful report of every such case should be made for the next few years, in order that a more extensive literature on the subject may be built up.

4. The great majority of laryngeal forceps now in use are ill adapted for the uses to which they are to be put.

5. Laryngotomy is a safer and more conservative procedure in the hands of a competent surgeon, in many cases, than bungling attempts on the part of an inexperienced laryngologist to remove a foreign body by way of the mouth with imperfect instruments and technic.

2825 Nebraska Street.

USING THE *X*-RAY WITHOUT BURNING.

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ADDENDUM BY BENJAMIN P. RILEY, M.D., NEW YORK.

Valuable as the *x*-ray is as a therapeutic measure, every operator feels a certain constraint when obliged to use this agent either for therapeutic or diagnostic work. Three years ago a well-known German radiographer formulated certain rules, and gave to the profession a system whereby the *x*-ray effect might be measured, and a certain number of units constituted a safe dose. During the year 1907 this same operator was sued for damages for causing by his own method of dosage severe *x*-ray burns.

All methods of dosage are fallacious because they can not take into consideration the idiosyncrasy of the patient. It is not, therefore, a system of measurement that we require, but rather something that robs the *x*-ray of the element that is most directly responsible for the deleterious effect. Unfortunately, no one has ever been able to see the *x*-rays; we simply have to be content with studying its effects on tissue and chemicals. When chemicals, such as the pearls of Holzknecht, the pastils of Sabouroud or the photographic plates are exposed to the influence of the *x*-ray, certain reasonable meas-

urements might be formulated, because all the elements are more or less known factors and are obliged to respond to certain physical laws.

The principal effect of the *x*-ray on these substances is decomposition of their molecular structure analogous to electrolysis; in other words, a separation of the atoms in the compound, with rearrangement and the formation of new compounds. This effect is primarily due to two causes: First, to the ionizing power of the *x*-ray; second, to the fact that the charged *x*-ray tube is a converter and surrounded by a static charge, which when separated by a dielectric from a capacity is capable of inducing into that capacity currents of opposite polarity. The current that is in this manner induced into the patient who happens to be the grounded capacity materially assists in the ionizing power of the *x*-ray. We can not deprive the *x*-ray of its ionizing power, but under suitable circumstances we can deprive the tube of its inductive effect by grounding the positive side of the static machine while the tube is in action. When, however, a coil is used for the production of the *x*-ray, neither side of the secondary can be grounded without serious risk of short-circuiting the secondary to the primary, thereby burning out the coil.

This state of affairs caused me to experiment with various shapes of tubes, until two and a half years ago a tube was perfected which I have named the Cornell tube (Fig. 1). This tube is made of heavy lead glass so that no rays are emitted, except through a flint-glass window, which corresponds in size to the lesion to be treated. The connecting wires are encased in glass insulators to prevent sparking on any part of the patient while under treatment. The flint-glass window is situated at the end of a projection, and must be in direct contact with the lesion, thus furnishing a ground and doing away with the air space which would otherwise be the dielectric between the tube and the patient.

When a tube is brought into direct contact with the patient, only the ionizing effect of the *x*-ray is exerted on the tissues, and this effect is all that is needed to furnish the most brilliant therapeutic results.

During the past two and a half years this system has been used at Cornell Medical College, and in over 5,000 applications not a single case of dermatitis has developed. All cases intended for *x*-ray treatment are divided into two classes, those with broken skin lesions and those where healthy skin covers the lesion.

In lesions of the first class, or broken skin lesions, we include epithelioma, lupus vulgaris, rodent ulcer, eczema, sycosis, favus, etc. When a patient presents himself for treatment with such a lesion a tube is selected with a window that will as nearly as possible include the entire lesion, the tube is then fastened in the holder in the usual manner and the flint-glass window is applied directly to the lesion for not less than five minutes nor more than fifteen, according to the depth of the pathologic structure (Fig. 2). Within a few hours, and continuing for some days later, a crust will have formed, and the lesion is reduced in thickness from one-third to one-half; then the same treatment is again repeated. After the fourth or fifth treatment the edges begin to close in. As the lesion becomes smaller the tube is changed to conform to the new size of the old lesion. I have frequently exposed such lesions as epithelioma for thirty minutes during a single seance, yet no burn has ever resulted, neither do I think it possible that a burn could be produced, no matter how long the tube is kept in contact with the skin.

In lesions of the second class, where sound skin intervenes between the lesion and the tube, a slight change in technic is necessary. In this class are included acne, hypertrichosis, hyperidrosis, tubercular glands, splenic leukemia, Hodgkin's disease, itching, dermatoses, etc. In treating these lesions the tube is brought into direct contact with the sound skin, and is slowly moved over a large area, so that the underlying structure receives a sufficient amount of exposure, while the sound skin covering the same receives at any one point but a minimum amount of exposure. With this technic all of this class of lesions are amenable to more or less permanent benefit, yet no burn will result. Whenever such lesions as splenic leukemia, mycosis fungoides, diffuse psoriasis, etc., are to be subjected to the *x*-ray it is preferable to use the tube at a distance of thirty inches, especially when the coil is used as the exciting agent. The tube must, of course, be one with high penetrative power. A dielectric of thirty inches practically removes all the undesirable inductive effect from the tube. When a static machine is used, the positive side of the machine should be grounded, and then the tube may be brought within twelve to fifteen inches of the patient without danger of a dermatitis.

When living tissue is exposed to the influence of the *x*-ray, radium, ultraviolet light, in fact, all radioactive substances, the ionizing property of these substances is felt by the various component parts of each cell. In very mild doses this acts as an irritant and so stimulates the tissue exposed. This accounts for the regrowth of hair or the fact that lanugo frequently takes on active growth, or the pigment cells deposit an extra amount of coloring matter through the exposed area. This has been referred to as the tanning process of the *x*-ray.

A somewhat larger dose, by overstimulation, inhibits physiologic function, especially all glandular function, and the higher or more complex function, the quicker and more certain the inhibitive action of the ray. Thus the ray will arrest testicular and ovarian function, cause the hair to shed and retard the growth of malignant cell proliferation, especially of glandular origin.

In large doses, meaning thereby prolonged exposures, oft repeated, by complete arrest of function, the ray destroys the nucleus and nucleolus of various cells, those of the horny layer of the skin being most resistant. A cell is dependent on its nucleus for existence; when the nucleus has been destroyed the rest of the cell components, such as the cell membrane and its protoplasm, according to their power of resistance, are either stimulated, inhibited or, like the nucleus, entirely destroyed.

All the parts of cells that are so killed become leukomaines or dead putrid nitrogenous bodies. The system reacts by its chemotactic property, and if this local reaction to this poisonous material is sufficient to cause a visible dermatitis or local inflammation, we have what has erroneously been termed an *x*-ray burn. This is a misnomer and should be removed from the literature. The term radio-dermatitis might be substituted.

The chronic radio-dermatitis of the *x*-ray operators shows all the various changes that the small but oft-repeated doses of *x*-ray are capable of causing. The atrophic areas show the existence of previous inflammation; the dilated blood vessels are the result of the destruction of the intima, while the hyperkeratosis is a compensatory hyperplasia on the part of the economy, due to loss of equilibrium between the various cell elements.

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ADDENDUM BY DR. BENJAMIN P. RILEY.

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In the foregoing pages Dr. Geyser has discussed the uses of the *x*-ray along the more advanced methods. I will endeavor to add a few clinical facts coming under my observation during the past eighteen months as physician in charge of the Cornell Clinic.

There are in this clinic twelve different departments, with a total average attendance of 400 patients daily. This attendance furnished a large material from which to select patients for the *x*-ray department. Each department furnished for *x*-ray treatment only such cases as were not considered suitable for treatment by other methods. For instance, there were no less than nine

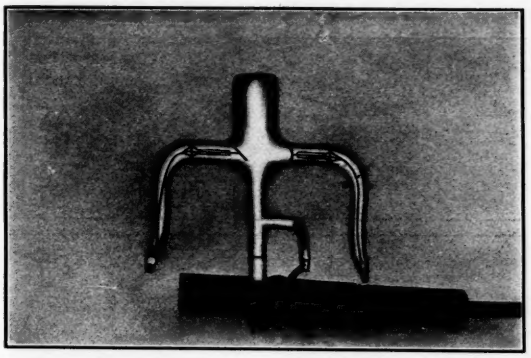

Fig. 1.—The Cornell tube.

Fig. 2.—Showing manner of using the Cornell tube in localized skin lesions.

cases of splenic leukemia under treatment at one time. These cases, for the sake of data, were most closely observed. Dr. Warren, of the department of pathology, regularly subjected these patients to blood examinations and urinalysis to observe any possible untoward effects. No deleterious effects of any kind were noted.

I was interested in the fact that Dr. Geyser claimed to be able to treat these patients without the least danger or thought of dermatitis; yet these patients were exposed to the *x*-ray furnished by a static machine with forty revolving plates, for from twenty to thirty minutes, twice weekly. No burns ever resulted from these exposures, while the spleens markedly decreased in size, and the reports from the pathologic department were more than satisfactory. All manner of obstinate skin lesions were referred to the *x*-ray department, from chronic acne to rodent ulcer and sarcoma. I have repeatedly watched the application of the "Cornell tube" in direct contact with the conjunctiva, yet I never saw the slightest undesirable reaction; on the contrary, the lesions all healed quickly and remained healed. The success was most gratifying in every way, knowing that no untoward results would follow. The process of repair set in immediately, infiltration of surrounding tissue lessened after the first exposure.

In epithelioma the first change noted was lessened hemorrhage from ulcerated surfaces, with a lowering of the granular edges. The most remarkable effect, however, was to be seen in the final results; the sore tissue hardly had the appearance of the usual fibrous variety, but was smooth, soft and elastic, differing but little from the normal skin in the neighborhood.

I was deeply interested in an epithelioma of the chin with glandular involvement. The patient was a man over 60 years of age, the lesion had existed for twenty years and refused to respond to all manner of treatment; plastic operation was considered out of the question, yet this lesion, to my great astonishment and satisfaction, healed completely in one month, or after twelve *x*-ray exposures. This patient wore a full beard and, strange to say, never lost a single hair during treatment. This lesion has remained well for the past year.

All skin lesions are treated at Cornell by the direct contact method, and no dermatitis ever resulted in consequence of this method. Many patients came to us, who have been under treatment at other institutions, with dermatitis in its various degrees. These were quickly healed and the treatment proceeded as though no previous burn had existed.

TREATMENT OF DIFFUSE SUPPURATIVE PERITONITIS.*

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In studying the subject of suppurative peritonitis it soon becomes apparent that the differences in the views of various authors with reference to certain types of the disease are due to a failure to adopt the same classification, and to a lack of a clear conception of what is meant by the terms employed. We read of septic peritonitis, local suppurative peritonitis, general suppurative peritonitis and diffuse suppurative peritonitis.

The term septic peritonitis should be employed to designate those cases in which the pyogenic infection is so acute and virulent that the patient dies before sufficient time has elapsed for pus to form.

The term local suppurative peritonitis should be employed to indicate those cases in which, owing to the character of the infection, pus develops slowly and nature has time to form adhesions which confine the pus to a limited portion of the peritoneal cavity.

The term diffuse suppurative peritonitis should be reserved to designate the conditions in which the infection is less virulent than in septic peritonitis, but more acute than in local suppurative peritonitis; where there is time for pus to form, but not time for nature to wall it in by

* Read before the Southern Surgical and Gynecological Association, New Orleans, Dec. 17-19, 1907.

adhesions, and, as a consequence, pus is free in the peritoneal cavity.

The term general suppurative peritonitis should be discarded. It was originally used in contradistinction to local suppurative peritonitis, and while its meaning should be apparent it has been misconstrued, thus giving cause for much discussion. The term was never intended to mean that the whole peritoneal surface was involved. The word "general" was used to indicate that the pus was free, in contrast with the word "local," where it was confined. To avoid recurrence of unprofitable argument and the statement by some that no patient with general suppurative peritonitis ever recovered, and the reply by others that, as the term was employed, no patient ever lived long enough to develop it, it is to be hoped that the title, general suppurative peritonitis, will be dropped from surgical nomenclature, and diffuse suppurative peritonitis substituted for it.

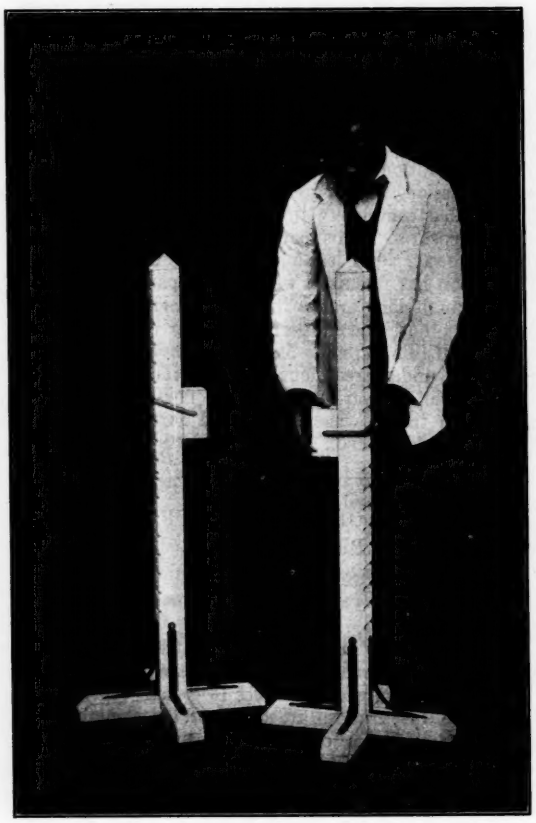

Fig. 1.—Bed elevators.

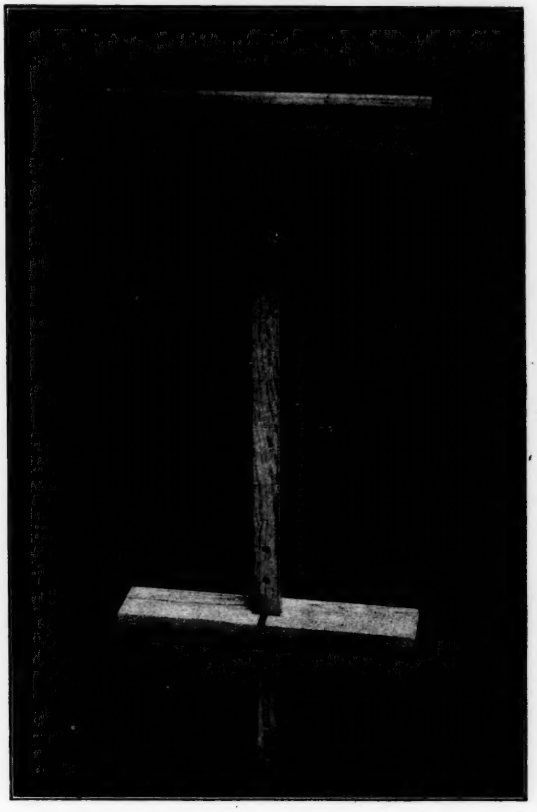

Fig. 2.—Bed seat.

The confusion alluded to in the classification of peritonitis is responsible for the condition which existed ten years ago, when Abbe, McBurney, Finney and others were reporting numerous successful operations for general suppurative peritonitis, while, at the same time, Senn declared that he had opened, drained and washed out the general peritoneal cavity in many cases of septic peritonitis without a single successful result; Weir that he had never been able to save a patient with general suppurative peritonitis, and had never seen one saved; and Granvin that, until recently, he had expected death after general purulent peritonitis and was not at all ashamed of his mortality rate of 100 per cent. At this period, and for some years afterward, the accepted mode of treatment was incision and correction of the focus of infection: evisceration, irrigation and sponging; counter incisions through the loins and the insertion of multiple drains. The result was a mortality of about 80 per cent.

The present generally accepted method of treatment was not adopted empirically, but was the result of deductions from scientific observations. Its essential features consist of Fowler's position and Murphy's proctoclysis: hence, it may properly be called the Fowler-Murphy treatment. In justice to others, however, the following history of the evolution of the method is given:

Muscatello demonstrated that the peritoneum of the upper abdomen, or diaphragmatic region, possesses much greater and more rapid absorptive power than the peritoneum of the lower abdomen or pelvic region. Clark saw the possibilities of postural drainage and advised elevating the foot of the patient's bed, thus throwing fluid, by gravity, to the surface which would most rapidly absorb it. Fowler said that the principle of postural drainage was correct, but its application was wrong; that the fluid should not be drained into the patient, but out of him. He advised elevating the head of the bed to allow the fluid to gravitate from the diaphragm where it would be absorbed, to the pelvis where it would be collected until removed by a drain. Bond demonstrated that particles of indigo-carmine placed inside the anus would be carried upward by what he termed

"reverse mucous currents." Cannon showed that except during defecation antiperistalsis is the normal movement in the large intestine, and that, owing to this fact, liquid feces are carried back into the cecum, where the watery element is absorbed.

Murphy suggested utilizing the foregoing observation in the treatment of suppurative peritonitis, by injecting saline solution slowly into the rectum, depending on reverse peristalsis to carry it to the cecum where it would be absorbed. He reasoned that, owing to the patient being unable to take as much water as was being eliminated, he became dehydrated and the empty vessels of the peritoneum rapidly absorbed any fluid the cavity contained. If, by introducing a large quantity of fluid into the circulation, the vessels could be overfilled, then the peritoneum would be changed from an absorbing surface to a secreting surface, and in place of toxic fluids going into the circulation, there would be a flow of cleansing serum into the peritoneal cavity.

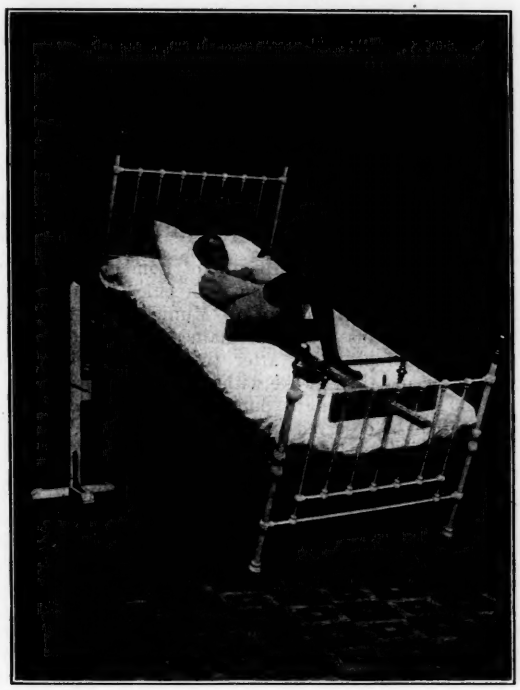

Fig. 3.—Bed in moderate elevation.

The practical steps of the Fowler-Murphy method are as follows: Open the abdomen over the seat of the primary focus of infection and correct the trouble, whatever it may be, so as to prevent the admission of further poison. Make a second short incision immediately above the pubes, and insert a large rubber drain to the bottom of the pelvis. The work should be rapid, with as little manipulation of the viscera as possible, and no effort should be made to remove the pus by sponging or irrigation. Place the patient in bed in an exaggerated Fowler's position. Give saline solution by continuous low-pressure rectal irrigation; administer morphia, in small doses, for pain and spartein, in large doses, as a general stimulant and prophylactic against suppression of urine. Purgatives should not be employed, but bowel action secured by the use of enemata. If there is much nausea or vomiting the stomach should be thoroughly irrigated and no food should be given until the patient can retain and assimilate it.

By the adoption of the method outlined I have seen a great change in my mortality. A recent analysis of the last 500 cases of appendicitis operated on in my private hospital gives a record of twenty-four patients with diffuse suppurative peritonitis. The first six were treated by the old method of irrigation and multiple drainage, with five deaths. The last eighteen were treated by the Fowler-Murphy method, with but one death.

Coffey has demonstrated that there are three cavities or basins of the peritoneum to be drained—the right and left flank, separated from each other by the spinal column and the pelvis, separated from the flanks by the psoas muscle. When the body is horizontal each flank holds more fluid, and is deeper than the pelvis. The bottom of the flank cavity is four inches below the top of the divide made by the psoas muscle. Hence, theoretically, a patient's body must be elevated to an angle of 50 degrees to permit gravity drainage of the flanks. I have found great difficulty in maintaining a patient in this position, and recently, in visiting various hospitals, I have always inquired what method or apparatus was employed in managing such cases.

I have found two principles in practice, angulation of the patient and angulation of the bed. The first is effected by keeping the bed horizontal and elevating the patient's body by means of a shoulder rest; the second, by elevating the head of the bed and allowing the patient to lie flat on the inclined mattress. As one method must be superior to the other, I have given their relative merits considerable thought. The advantage claimed for the "semi-sitting position" over "bed-elevation" is that it gives better drainage. This I do not believe is true, because, as I will try to show, it is impossible to maintain a patient in the proper position on a shoulder rest, while it is an easy matter to prevent his slipping on an inclined mattress, no matter what the elevation.

The disadvantages of the semi-sitting position are: (1) It makes it difficult for the nurse to place the bed-pan properly; (2) it is unnatural and subjects the patient to mental and muscular tension; (3) he will slip down when relaxed by weakness or sleep, so that his body will bend at the costal arch and his abdomen will be on a plane parallel with the surface of the bed. To prevent the tendency to assume this false position, some surgeons use axillary straps attached to the shoulder rest; some a double inclined plane to support the legs; and others go so far as to elevate the foot of the bed. None of these methods, however, satisfactorily corrects the trouble.

The advantages of elevating the head of the bed are: (1) The mattress may be put at any angle; (2) the patient lies on a flat surface, often unconscious of his position; and (3) he is completely relaxed and easily nursed. The difficulty experienced in managing this position has been to get a simple device for raising or lowering the head of the bed, and to devise a means to prevent the patient from sliding down the incline. Blocks, boxes and tables have been used for the first, and pillows, hammocks and swings placed beneath the buttocks and attached to the head of the bed, for the second.

I herewith present a model and photographs of a simple and cheap apparatus which I have employed for more than a year to accomplish both of the desired ends.

The bed elevator (Fig. 1) consists of a wooden base and upright piece. There are a number of notches on the side of the upright, into which fits an iron link which supports a block to receive the leg of the bed. The link, when horizontal, slips up or down, but when oblique fits into a notch, just as does the lock of an ordinary needle-holder.

The bed seat (Fig. 2) consists of a board which, either bare or padded with a pillow, makes a shelf on which the patient sits. A wooden shaft projects downward and passes through a second board which rests against the foot-piece of the bed (Fig. 3). In the shaft are a number of holes, and a peg placed in one of them will prevent the shaft from passing through the bottom board, and thus transfer the weight of the patient to the foot of the bed.

The advantages of the bed seat over a hammock or swing are its rigidity and consequent sense of security given the patient; the ease with which it can be removed and replaced by the nurse when it is found necessary to do so; and also the fact that there are no straps or ropes on either side of the patient's head or body to embarrass the nurse or alarm the relatives. Both of the devices described can be made by any carpenter at the cost of a few dollars, and will securely maintain the patient at any angle for any time without discomfort.

MIXED NARCOSIS.

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NEW YORK.

In 1774 Priestly discovered nitrous oxid gas and oxygen. It was one hundred years later before the medical world accepted the fact that it was possible to improve the anesthetic by combining the two gases. It is only within the last ten years that the real anesthetic properties of nitrous oxid gas have been generally acknowledged. While it is entirely satisfactory to partially asphyxiate the patient for the extraction of a tooth, and also perfectly safe, it is neither satisfactory nor safe to use this asphyxial method for prolonged surgical operations.

Hewitt, of London, within recent years discovered that a continual narcosis could be maintained by giving a definite mixture of the nitrous oxid gas with 14 to 18 per cent. of air for men and 18 to 22 per cent. of air for women. This is satisfactory, provided the mixture of air does not exceed 30 per cent. This is usually accomplished by anesthetists, who have not the necessary apparatus, by giving alternately nitrous oxid and air, with any of the inhalers now on the market, in the following manner: 2 to 5 breaths nitrous oxid to one of air, according to the patient and the depth of anesthesia desired.

A more satisfactory manner of giving air and gas is with an arrangement of my own, illustrations of which are here given. By turning a small stopcock marked "air" from 10 to 30, backward and forward, the proper degree of anesthesia can readily be determined and satisfactorily maintained. The objection to using air is that it contains a large percentage of nitrogen, which is useless for anesthetic purposes. By the administration of oxygen this useless nitrogen can be replaced by an equal amount of useful nitrous oxid gas. Cyanosis and stertor are thus prevented in a large number of cases.

Dr. Hewitt illustrates this in the following manner: A mixture of 40 per cent. of air and 60 per cent. of nitrous oxid would contain about 8 per cent. of oxygen and 32 per cent. of nitrogen, and while 8 per cent. of oxygen would be the proper amount, 60 per cent. of nitrous oxid would be insufficient to produce tranquil anesthesia. By substituting oxygen for the air we should be able to replace the 32 per cent. of useless nitrogen by a corresponding quantity of useful nitrous oxid, this latter now being 92 per cent. and the percentage of oxygen remaining the same. The equation would be about like this:

With air:	Air.....40 per cent. =	8 per cent.	oxygen.
		32 per cent.	nitrogen.
	Nitrous oxid.....60 per cent. =	60 per cent.	
With oxygen:	Oxygen.....	8 per cent.	
	Nitrous oxid	92 per cent.	

Dr Hewitt, by a series of elaborate experiments, has found that from 5 to 7 per cent. of oxygen is sufficient for adult males and from 7 to 9 per cent. for females and children.

Over forty thousand administrations have been recorded with nitrous oxid and oxygen and not a single fatality. By heating nitrous oxid gas and oxygen the anesthetic is made even safer than when it is administered in the usual manner. Also the small percentage of those troubled with nausea from this anesthetic is still further reduced. As is well known, it is the exception to have any after-effects from gas, given either with or without oxygen, and this fraction is still further reduced by using what is called in this paper "mixed narcosis."

In 1863 (according to Hewitt, of London), morphin was first used in conjunction with chloroform during the anesthesia by Nussbaum, of Munich. He reported that patients thus treated remained in a deep sleep for a considerable time after the withdrawal of the chloroform and then awoke without nausea or vomiting. In 1869 Claude Bernard published his researches, reporting that he observed similar effects in dogs. Three years after Bernard's report morphin was given before the chloroform, with the object of facilitating the action of the chloroform and rendering smaller quantities of the anesthetic necessary. So that in 1863 to 1872 they were using chloroform with a little morphin, and now —in 1906 and 1907—we are using morphin with a little chloroform. The difference is the same as that between tweedledum and tweedledee. Morphin unquestionably is useful, whether used with chloroform or ether, but is safer when ether is used, on account of the stimulating effect of ether on the respiration.

The contraindications to morphin are respiratory difficulty, coma, great weakness, anemia and also extreme old age. If used after the operation it should never be given until all of the reflexes appear. My own practice is to give 1/16 to 1/4 of a grain of morphin, plus 1/500 to 1/150 of atropin, half to three-quarters of an hour before the operation. It probably is best to give the amount decided on in two doses instead of one. The majority of fatalities reported have occurred when chloroform was used in combination with morphin.

Hewitt relates a case in which 1/3 of a grain of morphin was given and chloroform used as the anesthetic, and on account of respiratory paralysis artificial respiration had to be kept up continuously for four hours, the patient finally recovering. Hewitt is opposed to the routine administration of this drug.

If a fatality should occur when ether is used with morphin the trouble would be that the ether had been

pushed too far. Physiologically ether is indicated and chloroform is contraindicated with morphin, and the only reason for urging chloroform in this connection would be to lessen the chances of any after-effects. But if ether is given, drop by drop, either by itself or in connection with chloroform, the margin of safety would certainly be increased.

Regardless of the method used, morphin in small amounts as indicated certainly is beneficial, decreasing the amount of pulmonary anesthesia in the induction and maintenance of the general anesthesia, and thereby increasing the limits of safety, while reducing materially the nausea and vomiting afterward. I fully believe in the routine exhibition of morphin, always paying attention to the dosage and to the exceptions noted above. The routine demonstration does not mean a predetermined dose, regardless of the age, size or condition of the patient.

One must not forget the small percentage of persons susceptible to nausea and vomiting after giving morphin by itself. There is no drug in the Pharmacopeia that has not exceptions regarding its physiologic effects. Whenever this idiosyncrasy is known, chloretone should be substituted for morphin; dose, 5 to 20 grains thirty minutes before the operation, or 5 grains every fifteen minutes until the desired dose is taken. The last dose should be given thirty minutes before the operation.

Whether ether by the drop method or the gas-ether sequence, or the Allis inhaler is used, morphin will be of assistance. If we decide on the C. E. mixture it is best to have the chloroform and ether in separate bottles. Give the morphin as usual and then commence the anesthetic with a few drops of ether until the patient gets accustomed to the smell and the irritating qualities of the drug. In from one to three minutes you can put a few drops of chloroform on the mask and continue the anesthesia with ether. After the patient is thoroughly anesthetized continue the drop method of ether, unless the reflexes get a little too active; then put on from five to ten drops of chloroform and continue with ether, drop by drop.

This is a more scientific method, physiologically speaking, and also a safer method than giving the old C. E. mixture (two parts of chloroform and three of ether). A splendid dropper can be made by cutting a slight trough in the corks of both the ether and the chloroform bottles and replacing them. The bottles are then to be tested to see if they drop properly. A still better way is to place a safety pin in the neck of each bottle and put in the cork as usual, allowing one-third of the safety pin to protrude beyond the cork. This simple device was given us by Dr. Heller of the Bronx. Still another way is simply to perforate the tin top with a pin, thus allowing the ether to come out in a fine spray. When the operation is completed cut out the metal cap entirely and replace it with a cork. Any of these devices is more satisfactory and economical than the ordinary drop bottles in the market.

Ethylchlorid—If ethylchlorid is used to induce anesthesia it is perfectly safe and proper to follow it with ether, but it is very unsafe to follow ethylchlorid with chloroform; both drugs are depressants and they both kill in the same way—suddenly and without warning. Therefore, ethylchlorid should never be followed immediately by chloroform. It is perfectly legitimate to start with ethylchlorid, then switch to ether, and if the reflexes are only slightly in abeyance to follow with chloroform.

As I have stated in a previous paper, complete surgical analgesia from scopolamin and morphin, or any other tablet, is unscientific and will never become a routine procedure. One death was reported from morphin, hyoscin and cactin in THE JOURNAL of the American Medical Association, Aug. 3, 1907. Three tablets were given as directed. The operation proceeded nicely. The patient was removed from the operating table in comparatively good condition, but died several hours later from paralysis of the respiratory centers.

Dr. Wolf, house surgeon of the Jewish Hospital, Brooklyn, at the meeting of the Long Island Society of Anesthetists, October 2, reported a case of labor in which the hyoscin, morphin and cactin tablet was used. One-quarter of the full tablet was given in one dose, and

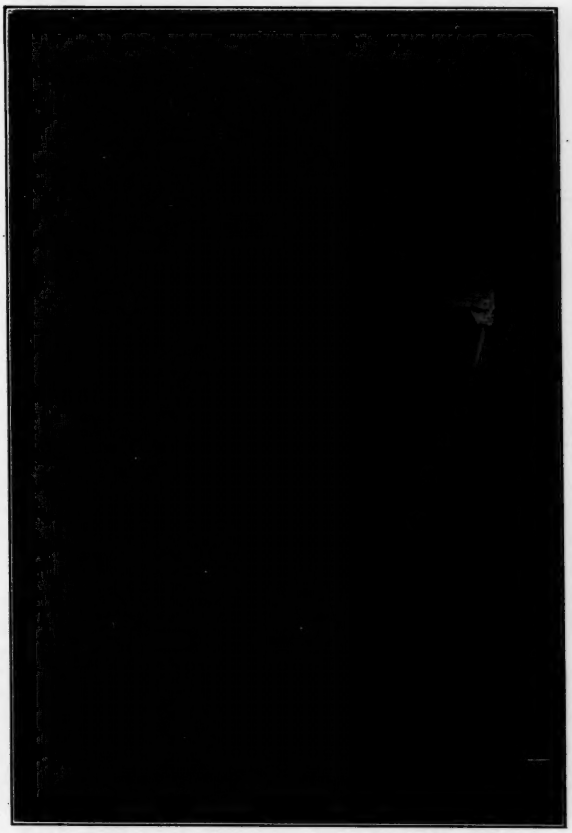

Fig. 1.—The gas-oxygen apparatus, ready for use.

two or three hours afterward one-half of the tablet was given. When the baby was delivered the heart was beating, but very great difficulty was experienced in maintaining respiration. Respiration ceased, not once but several times. The child finally recovered, but the method has not been used since.

It is the height of folly to go so near the border line as to reduce the respirations to four or six per minute and then to state that this is perfectly safe because the patient did not happen to die. But morphin, 1/16 to 1/4 of a grain, with 1/500 to 1/150 of atropin thirty minutes before the operation (or 1/2 or 1/3 of the decided amount in broken doses), and then using warm nitrous oxid gas and oxygen (plus a few drops of ether,

when necessary) as the anesthetic, is both safe and sane. In addition to this, just before the patient is taken from the table and while still under the influence of the narcotic, a high rectal enema of normal saline should be given as the routine procedure to counteract any effect that the morphin might possibly have on the kidneys and also to alleviate thirst. This should be repeated every few hours.

I would like to state a few general rules in regard to the administration of morphin, with which I believe nearly all the profession will agree.

1. Whenever morphin is to be given it should always be given before instead of after the operation, in order to obtain the benefit of this drug in the induction and maintenance of anesthesia.

2. All athletes and alcoholics should have this preliminary dose of morphin.

3. In extremes of life, the very old and the very young, morphin should be administered with very great caution.

4. Whenever morphin is administered the anesthetist should maintain a lighter narcosis than when this drug is not administered. There is no question that all or the majority of fatalities that have occurred, especially

Fig. 2.—Dr. Gwathmey's gas-oxygen attachment.

with scopolamin and morphin, were produced by ignoring this rule. In fact the question comes to my mind now whether or not the vaunted superiority of the morphin, hyoscin and cactin tablet over the scopalamin and morphin may not be attributed to the knowledge of this fact, gained with the former tablet.

When giving ether or chloroform alone most of the reflexes must be abolished in order to maintain the proper degree of anesthesia necessary for the successful issue of the operation. When morphin is administered these reflexes can be allowed to remain, and yet the patient will be perfectly quiet. From these facts I conceived the idea of a mixed narcosis, which is simply this: To give the morphin and rely on its nerve-blocking properties, and merely put the patient to sleep with the warm nitrous oxid gas and oxygen, in the majority of cases stopping short of the stertor. If the morphin were not given, in order to maintain the same degree of anesthesia, the gas and oxygen would have to be pushed much further, and there would probably be a great deal of stertor, a free flow of saliva, and more or less cyanosis. In fact it is impossible to maintain surgical anesthesia with gas alone, in the great majority of cases, for any great length of time without marked cyanosis. By giving the small amount of morphin indicated we get a certain safe physiologic effect of this drug.

If, then, we use the safest pulmonary anesthetic known to-day, namely, warmed nitrous oxid gas and oxygen, we can get and maintain the analgesic effect desired with far greater safety than if we rely on either one of these agents almost to the limit of exclusiveness. If the reflexes are not yet sufficiently abolished, add a few whiffs of ether in preference to pushing the gas and oxygen to the limit. We will thus get the beneficial effect of all of these agents, with the least degree of danger.

In several cases in which I used morphin, plus a little whisky, the anesthesia was so unsatisfactory in every instance that I was compelled to switch to chloroform or ether. In all of these cases it is barely possible that I made the mistake of giving too little oxygen, although Hewitt states that nitrous oxid is contraindicated in alcoholics and also in elderly and obese subjects. In cases of enlarged tonsils, adenoid growths or

Fig. 3.—Dr. Gwathmey's gas-ether inhaler. The gas-oxygen attachment replaces the ether attachment and bag shown above.

anything that would obstruct breathing, also in muscular and heavily built men and those who smoke or drink to excess, nitrous oxid would be contraindicated.

I have given this anesthetic in a great number of cases (which will be reported in detail in the near future), in the majority of them with most gratifying results. The time of anesthesia varied from ten minutes to two hours. The cases included appendectomies, laparotomies, gallstones and the usual surgical cases.

Dr. Arthur D. Bevan, in THE JOURNAL of the American Medical Association, July 20, 1907, relates a number of operative cases in which nitrous oxid gas was the anesthetic used. He makes no mention of the value of oxygen in relation to nitrous oxid, and none whatever of the still greater value of warm nitrous oxid gas and oxygen, but he makes a plea for a fuller recognition of this anesthetic.

Dr. Ernest Brown, of Cleveland, Ohio, by inventing an apparatus that will at the same time heat the gas and prevent the valves from freezing, has made it possible to administer gas and oxygen continuously, and with as much assurance of success as we can administer

chloroform or ether. By preceding the administration with morphin and giving this warm nitrous oxid gas and oxygen, plus small amounts of ether, when indicated, we have a nearer approach to the ideal anesthetic than anything that has been offered up to this time. The morphin, administered as suggested, not only helps in the induction and maintenance of anesthesia, but it also gives the patient that calmness of mind and assurance that is in itself one of the greatest boons that can possibly be offered to him. In addition to this, as the patient is recovering from the narcosis, the sharpness of the pain of the operation is done away with in a great measure.

On the other hand, the omission of morphin in certain cases, and the immense flow of saliva from ether, especially when the open cone method is used, unquestionably has been responsible for some deaths on the operating table. The mixed narcosis should be useful not only in surgical cases, but there might possibly be a field for this safe, warm anesthetic in certain cases of insomnia.

According to Dr. Hewitt, the three principal objections to the administration of definite mixtures of nitrous oxid and oxygen are: 1, That they are difficult to prepare with accuracy and in sufficient quantities; 2, that different subjects require different percentages; 3, that the proportion of oxygen can not be increased or decreased to meet special conditions arising during the administration.

The first objection is met by Dr. Brown's hot-water arrangement, which insures a continuous supply of the gas, something heretofore impossible. The second objection is met by my own simple arrangement of a third opening in addition to the two valves, and this requires but little manipulation to find the per cent. desired. The third objection is met by the gas and oxygen being placed very near the patient's face, thus making it possible to increase or decrease the percentage of oxygen instantly.

With these general remarks on the subject of mixed narcosis I will conclude my paper with a plea for a more careful inquiry into the subject. We have so many anesthetics, sequences and combinations that it would be ridiculous to propose that any one anesthetic should supplant all others. Cases must be selected. Knowing the weak points of our various agents enables us to make such a selection as to obtain a smooth narcosis, thus avoiding disagreeable experiences and giving the patient the maximum of postoperative comfort.

124 East Sixteenth Street.

A SUGGESTIVE PLAN FOR A MODERN GENERAL METROPOLITAN HOSPITAL OF FIVE HUNDRED BEDS.

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CHICAGO.

Since my interneship in the Cook County Hospital in 1884-86 I have had my attention repeatedly called to hospital architecture and management, and have taken every occasion to observe and criticise hospitals, not only from the standpoint of the physician, but more particularly from that of the patient. Recently my advice has been sought in the preparation of the plans for the Lithuanian Hospital in Chicago, and this article is the result of my present renewed interest in the subject.

Most of the hospitals in the city, and in adjoining cities, are constructed on the pavilion or hotel plan. Where private patients are to be accommodated the hospital is a cheap imitation of the hotel. Where the patients are kept in wards, as in the County Hospital and in the annexes of the eleëmosynary hospitals the pavilion plan is followed.

An ideal hospital should be constructed for the patient. Only so far as the patient's need coincides should the convenience of the nurses, physicians and administration be allowed to dictate. The traditional architecture of the hospital is either monastic or lodging-house-like. It is an assemblage of cells or a collection of dormitories with kitchens attached. In modern times ventilating holes and operating rooms have modified only slightly the problem of construction.

The first modification of the hospital which has been brought about lies in the isolation of contagious diseases in separate hospitals, and the construction of shacks, tent colonies or permanent cottages for the tuberculous. The great success of the daring innovations of Trudeau, in the Adirondacks, has made the treatment of tuberculosis in hotel-like hospitals criminal and has

Fig. 1.—Sketch of a cabin for a single patient, made by W. Carbys Zimmerman, from one already constructed at Buffalo Rock, Ill. The architecture is merely suggestive. The essential elements are a good roof, good walls, good windows, and absolute isolation.

compelled many institutions to place the tuberculous medical and surgical cases in temporary tents or wooden huts. Even the managers of the institutions for the insane have removed those unfortunates who are lucky enough to have tuberculosis to isolated, hygienic, temporary structures, greatly to their advantage and also to the safety of the dormitories from which they came.

Modern aggressive surgery has made the hospital into a hotel for the temporary care of the vivisected. All that the surgeon cares for is a room for his patient to occupy during the three or four weeks she is recovering from his incisions. She may then go home and get well or lead a life of invalidism, as it happens. To cure his patient and restore her to a life of usefulness and happiness is not the modern surgeon's conception of duty. He looks on the invalid as an incumbrance to his hospital, and all the essentials of recovery as unnecessary expense and space-consuming impedimenta. Even the public authorities, as represented by the building laws for hospitals, put the care of the sick, those suffering from contagious diseases, entirely out of the possibility of metropolitan hospital treatment. A well-

endowed hospital for contagious diseases has been unable to secure the permit necessary to construct and maintain an institution which has absolutely no competitor in the city of Chicago.

It seems to me necessary and desirable that the new hospital which has been projected by the Lithuanian people, the greater number of whom are wage-earners, should be peculiarly adapted to the care of this class of citizens, the treatment of their injuries and the cure of their diseases, and that the first essential in this would be the architecture of the hospital.

1. In order to be most useful the surroundings of home life should be preserved. The present hotel-like or monumental hospital is alarming to the patient and quickly becomes institutional in its rules, regulations and atmosphere. The methods of treatment in these institutions are not easily carried over to the surroundings of the home. The ventilation or lack of ventilation is depressing and mysterious. The windows can not be opened and the doors are caisson-like in structure. The barren severity of the walls and floors, dictated by antiseptic precautions, are unrelieved by color, fresh air or sunshine. The remoteness of the service rooms and the complicated condition of bathing are impediments to the patient's recognition of the efficiency of similar treatment which might be carried out at home.

2. Fresh air and sunlight are therapeutic measures which can not be neglected in tuberculosis and all diseases of the respiratory tract, and which should not be neglected in nutritive diseases and all conditions of repair, whether from traumatic injuries, surgical operations or errors of metabolism. The only way to secure absolutely fresh cold air is to have the patient's room wholly separate from all other occupied space. In other words, the patient should be in a structure by himself, in a tent, a shack, a hut or a little house. He should be surrounded on all sides by fresh, unpolluted, cold air. His room should have windows in all directions, it should be capable of being warmed for his comfort during dressings, and it should have the conveniences of his existence, a toilet and basin and a buffet. Such a structure, so far as I know, has been provided for tuberculous patients only. In a little more extended plan it was the basis of the cottage hospital of the 60's.

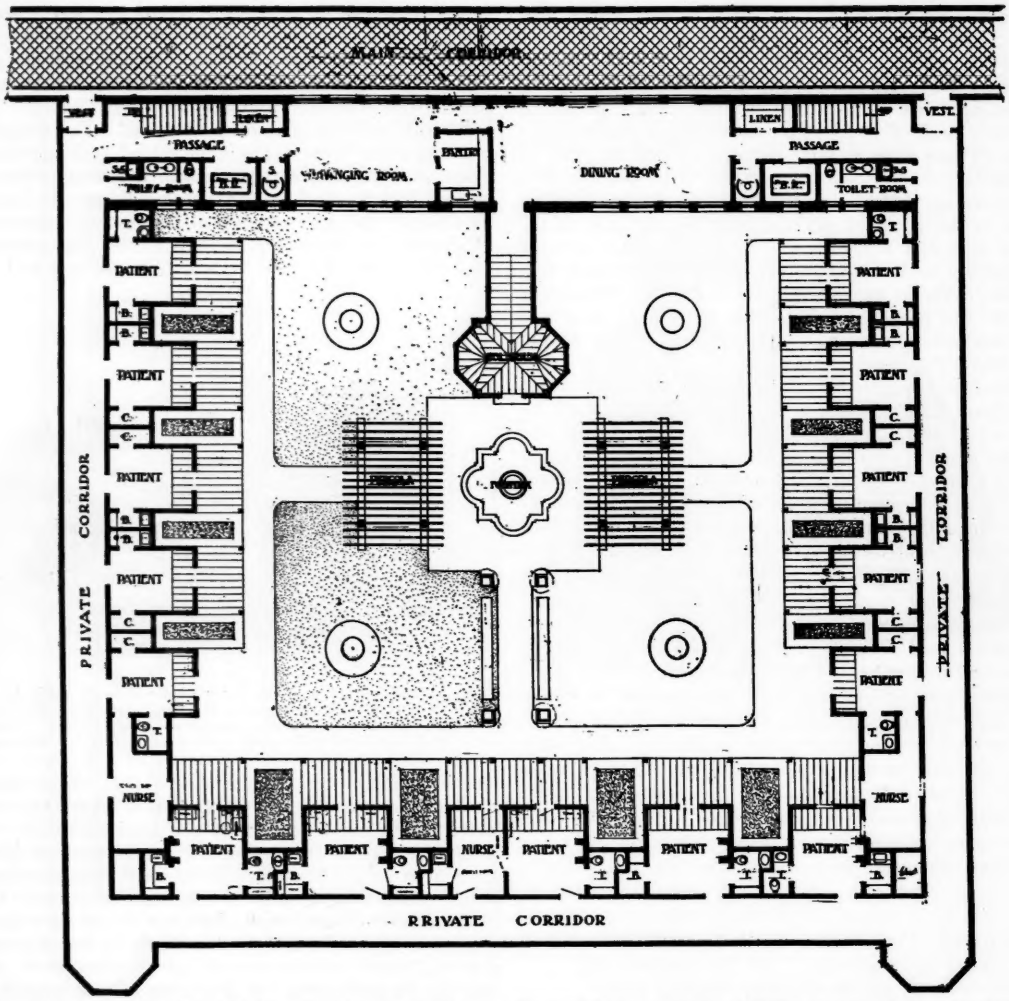

Fig. 2.—Ground plan of a typical court, surrounded with a corridor and having a service building, the second floor of which is shown laid out for a dormitory in Figure 3.

My friend, W. Carbys Zimmerman, has prepared the sketch (Fig. 1) of such a cabin from those already constructed by him at Buffalo Rock, Ill. The screened porch has a roof of wired glass, allowing sunlight in the front windows.

3. It is desirable to construct the hospital so that the patients can be classified, and so that the several groups can be isolated completely from each other, in order to prevent contagion and allow the specializing of the architecture and the methods adapted to the needs of the several groups. Such a construction should also be so standardized as to allow unit after unit to be built, as experience dictated, as demand arose, and as the resources of the institution permitted. This object has been sought in arranging the cabins in courts or quadrangles of fifteen or more each. The court is surrounded by a corridor, roofed and glazed, with doors leading into each cabin. On the south side of each quadrangle is a service room large enough to feed, nurse and accommodate the patients of the court. This service room might be two stories high and the second floor used as a dormitory for the nurses if it was a contagious court, or for the convalescent patients, if it was non-contagious. The plan for such a court as proposed by me has been made by Mr. Zimmerman (Fig. 2). It provides for fifteen separate cabins, each with its own toilet and buffet, and each provided with an open porch eight feet wide and screened. The porch is on the same level as the floor of the patient's room, so that his bed may be run out after his dressing and bathing and easily run in again when necessary. A few of the rooms are provided with adjoining nurses' rooms for patients requiring special nurses. The service room contains two sets of bathrooms; each set has a tub bath and a shower bath and adjoining dressing rooms. The service room is connected with the kitchen, which, in the completed hospital, will be in the administrative group, by an electric railway, or, if the single court is built with the basement kitchen, by a dumb-waiter. The service room opens directly into the dining-room where the ambulatory patients eat, and where the nurses and help eat in the contagious courts.

The second floor is reached by a short flight of stairs and is arranged in the accompanying plan (Fig. 3) as a dormitory for ambulatory and convalescent patients. It could be divided up for the nurses and help in a contagious court. It communicates with the roof of the grand corridor. The interior of the court is arranged as a formal garden adapted to the use of the court. It is surrounded with a walk and has a few trees, a fountain with seats or other attractive ornaments. The interior of the court might present the appearance shown in Figure 4, which is a perspective treated in classic form. The several courts might have entirely different architectural effects, if consonant with the general plan of the hospital. Since the court is completely surrounded by protecting corridors, any court used for contagious diseases should have a wicket entrance on the street. The laundry and dishes should be sterilized with live steam before going to the administration group.

The essential elements of the court are its accessibility from each cabin, the isolation which it gives from intrusion, from noise and dust, and the pleasing view which it offers from every porch and window. Patients seclude themselves because their dressings or infirmities make them the target of curious eyes. In the court they would see and be seen by their fellow-patients and friendly attendants alone.

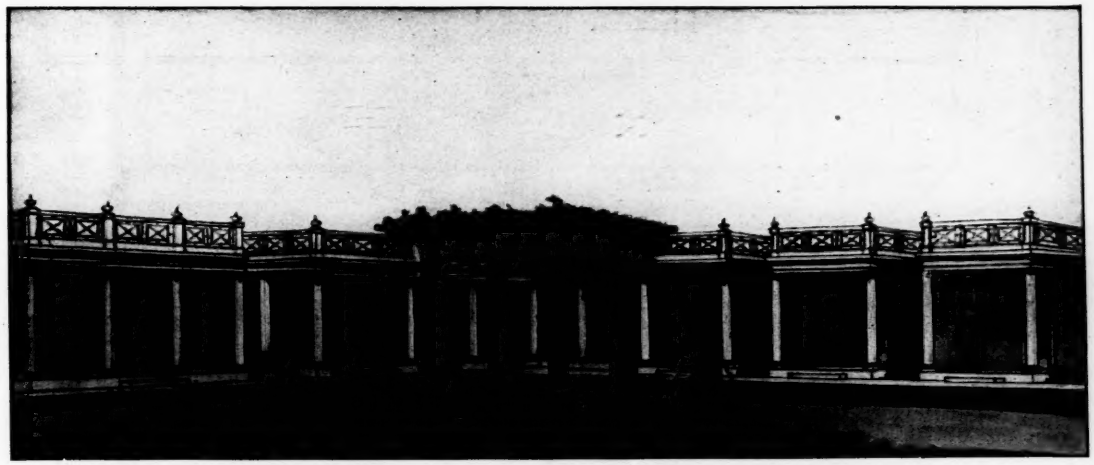

Fig. 4.—A perspective of a corner of a typical court in the hospital as planned.

The construction of such a court as the preceding would not cost more than $30,000, even though the service building was fitted out with its own heating apparatus, kitchen and laundry. It would probably be better to have a heating apparatus and laundry at some distance from the court, and of such a capacity as to heat two or three courts of thirty patients each. By this method the hospital could be begun on a very small expenditure.

4. The Lithuanian Hospital Association has secured eight acres of land in one block, surrounded on all sides by a sixty-six-foot street. The east end abuts Western Avenue, which is more than 300 feet wide and is park-like in its arrangements. This block is 1,300 feet east and west and 266 feet north and south, and contains 345,800 square feet, or 691 square feet for each of 500 patients. It has been proposed to lay out the central 150 feet as an administrative group, containing a boiler house, laundry and kitchen, electrical and refrigerator plants, houses for the better class of employés, and an administration building with a small chapel, an operating pavilion and a therapeutic gym-

nasium and bathhouse, and suitable clinical and pathologic laboratories (Fig. 5).

This central administrative group would be two or three stories high, and each building could be built separately and independently, but all after a preconcerted plan. It should be connected with the several courts by a central grand corridor twelve feet wide, the basement of which would carry the sewage, the hot and cold water, the electric and telephone wires, and give room for a double-track electric railway or horizontal dumb-waiter, connecting the laundry, kitchen and storeroom with the several courts. The main floor of the corridor would be two and one-half feet above datum and allow abundant light and ventilation by side windows.

The courts on each side of this corridor would be 125 feet wide from north to south and any convenient width from east to west. There will be room for about ten such courts. On the west end 75 feet would be reserved for the nurses' residence and garden. It would connect with the grand corridor and have such dormitories and private rooms as would accommodate 200 nurses. On the opposite end might be located a large amusement hall and theater, where professional and amateur performances would be a source of income to the hospital or of amusement and education to the patients and employés and the surrounding neighborhood. This building should be fitted up like a clubhouse, with indoor and outdoor games, and a suitable refectory for the service of the employés of the hospital and the convalescent patients. It would assist in solving the perplexing problem of retaining efficient service at a moderate expense.

The construction of one-story isolated cabins in enclosed courts would not be inconsistent with the building of a conventional ward building with service rooms attached in which the treatment of cases might be compared with the outdoor treatment. Such a ward building or dormitory would be good enough for healthy accident cases, and might be found necessary at the present time.

Such a hospital as this would easily be adapted to the needs of small communities, where land is cheap, and to every sort of treatment. It could be built of wood, or even of wood and canvas or matting where temporary service alone is necessary.

Built in a substantial manner most hotel-like hospitals cost 28 to 35 cents per cubic foot and $1,500 to $3,000 per patient's bed. While it is impossible to say how much such a hospital as the one here proposed would cost until it has been completed, good builders have agreed that it would be far less than the many-storied caravansaries which have been built almost universally during the past three decades.

The crux of hospital management, I know full well, is the expense per bed per day. This sum ranges between 50 cents and $3.00. The guilds of hospital superintendents are busy in their meetings in planning ways of diminishing this item by throwing the burden on others, by cutting the rations in two, by overworking the nurses and servants, by selling the garbage, by washing and resterilizing the surgical dressings, and by compelling the internes and nurses to operate and dress cases barehanded. It reminds me of analogous efforts made by their predecessors twenty-eight years ago. To save coal they stopped up the ventilators and caulked the windows. To save on dressings they gave us oakum by the bale instead of by the barrel, and bandages at 7½ cents the yard instead of 8. What an extravagance and luxury was our demand for Lister dressings, sterilized water and soft soap, and yet the actual price of dressings for each patient has diminished, and incidentally the death rate from wounds and operations almost sank to the vanishing point. The capacity of the hospital for usefulness has increased.

Does it seem unreasonable, then, that the plan which is here proposed to give air, light and outdoor life to the patient at a cost per bed for the plant of less than any metropolitan hospital can show, should be given a trial, in a small way at least, in spite of the fact that it is a novelty and presumably more expensive per patient? Will it pay in restoring to health? That is the question.

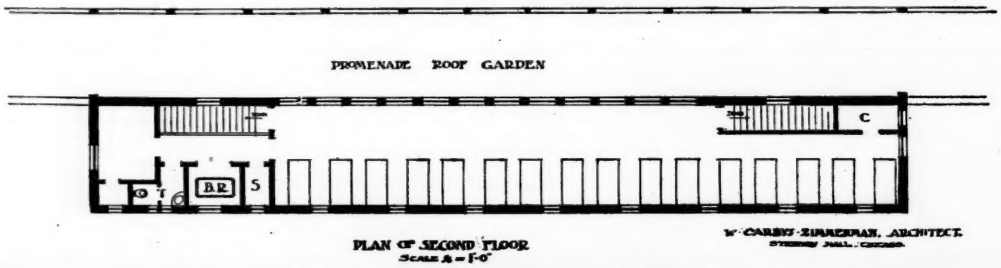

Fig. 3.—The second floor of a service building in a typical court, arranged as a dormitory for convalescent or ambulatory patients.

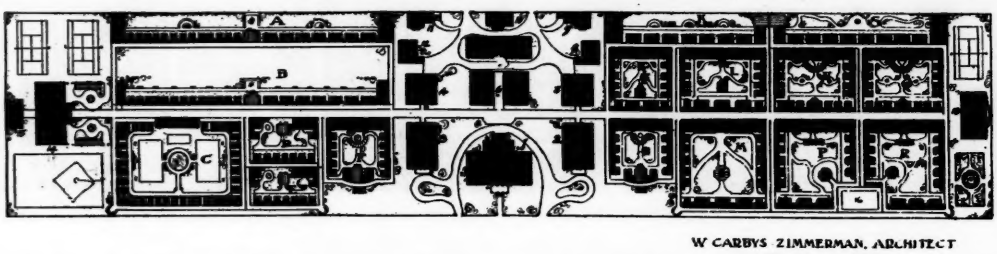

Fig. 5.—General plan of eight acres. 1-11. Administration group. A-S. Courts for various groups. 13. Nurses' home and garden. 14-15. Theater and club house.

NERVE-BRIDGING.

REPORT OF ONE SUCCESSFUL CASE.*

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NEW YORK CITY.

The literature of the surgery of the peripheral nerves is fairly voluminous, but, instead of being indexed under any one caption in the *Index Medicus*, it is scattered through the various subheadings of surgery. This renders it difficult to cover the ground completely.

In the case reports, of which the literature largely consists, the results are usually stated in such general terms as to be of little value for a study aiming to evolve the best technic for the treatment of the different types of cases. This difficulty is not hard to understand if it be remembered that the results from nerve surgery are late in appearing (1 to 2 years), and that it is almost impossible to keep track of the patients and maintain their interest sufficiently to permit of frequent systematic examinations for record. For these very reasons the postoperative record of the case reported in this paper consists almost entirely of photographs. No electrical tests were possible.

Fig. 1.—Before operation. Total paralysis of left upper extremity.

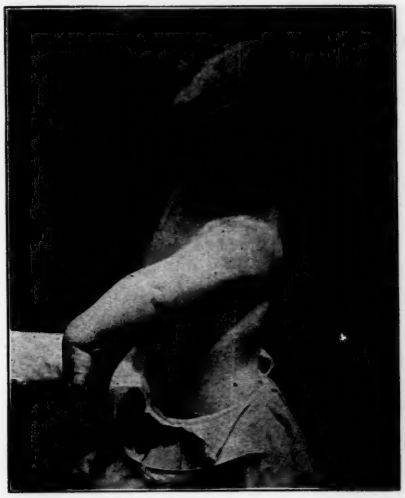


Fig. 2.—Eleven and a half months after operation, showing anterior elevation of extremity. Fingers contractured from neglect of after-treatment.

To put the technic of nerve-anastomosis and nerve-bridging on a sound basis much experimental work must be done to determine the relative values (with regard to the return of motor power, co-ordination and normal trophic conditions), of lateral implantation as compared to end-to-end anastomosis. The bridging of gaps between the ends of divided nerves, which can not be approximated is a modified type of end-to-end anastomosis.

To help the nerve ends to grow together various expedients have been used. These may be classified as:

(a) Neuroplasty, where one or both of the nerve-ends are so split and turned over as to meet and bridge the gap.

(b) Grafting or nerve-transplantation, where a section of nerve from the same or another individual, or even from one of the lower animals, is made to fill in the gap by suturing its ends to those of the divided nerve.

(c) Tubulization, where a tube is used to connect the two nerve ends to prevent the ingrowth of connective tissue during the development of the new nerve tissue which is to form the permanent bridge. Various kinds of tubes have been used, decalcified bone, formalinized gelatin, arteries (fresh or formalinized) from different animals, magnesium, etc.

(d) *Suture à distance*, where a catgut suture is passed from one nerve end to the other several times, forming a framework between the two. With this is often combined one of the tubulization methods.

(e) Resection of bone, where enough bone is removed to permit direct end-to-end suture of the nerve. This method does not involve true nerve-bridging, but must be included as a method of dealing with nerve defects.

(f) Lateral implantation of both proximal and distal stumps of the damaged nerve into a neighboring motor nerve. There is some evidence to show that fibers from the proximal stump grow down along the nerve into which it is implanted and thus help to bridge the gap.

It is well established that materials interposed between the nerve ends act only as guides which degenerate and are absorbed as the new nerve grows. In neuroplasty, then, the flaps secured from the nerve ends are changed to mere bridges which degenerate and are absorbed. The larger the flaps have to be, the more damage is done to the very structures on which dependence is placed for filling in the gap, and the more regeneration is necessary to replace the nerve tissue thus lost.

In nerve transplantation much time and trouble must be expended to obtain a graft of the right size, in aseptic condition, just at the time it is needed.

In 1904, Powers[1] collected 22 cases of transplantation. "Satisfactory" results were reported in 22 per cent. of the cases, but Powers questions their authenticity because of the absence of detail in the reports.

Douglas-Crawford[2] adds one case in which he reports

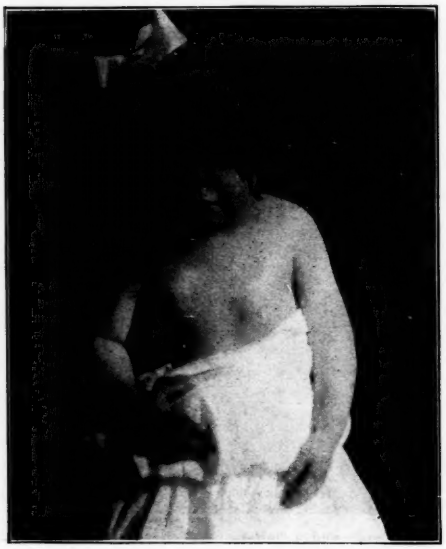
* Read before the Surgical Section of the New York Academy of Medicine, Dec. 6, 1907.

1. Transactions Amer. Surg. Assoc., 1904.
2. Liverpool Med. Chir. Jour., 1906, vol. xxvi, p. 200.

"nearly complete success" after four months, in bridging a three-inch interval in the musculo-spiral nerve by means of the spinal cord of a rabbit. This would represent a very unusually rapid regeneration of nerve, entirely aside from the transplantation.

Marion[3] states that neuroplasty and nerve transplantation have been abandoned because they are very delicate, tedious operations, and their results are inferior to those obtained by *suture à distance*. Tubulization also involves much trouble in preparation of the tubes, which must be of many sizes. Some authors state that these foreign bodies cause increased connective tissue growth, which interferes with nerve union. Foramitti[4] in numerous experiments with fresh and formalinized calves' arteries found no such reaction. Only one case of the use of this method in the human being is recorded and that resulted in complete failure.[1]

In contrast to these three troublesome procedures *suture à distance* has many advantages. It does the minimum of damage to the nerve ends, is simple, is applicable in any situation, holds the nerve ends as close together as possible without undue tension, introduces an



3. Two years four and a half months after operation, showing natural position of left upper extremity. Contracture of fingers has disappeared.

absorbable foreign body which causes the minimum of disturbance to the tissues and acts as a framework along which the nerve fibers grow to each other. Its results in practice are superior to those of the other methods.[3]

In the following case the *suture à distance* method was used. The patient was Case 9 of the series of "Brachial Birth Palsy" cases operated on and reported in conjunction with Drs. L. Pierce Clark and Thomas P. Prout:[5]

Ruth F., aged 1 year, the second child, was large, and was delivered with instruments. Soon after birth, it was noticed that the left upper extremity was motionless. There has been no return of motion (Fig. 1). In other respects she has been very well.

Physical Examination.—She is a large, well-nourished child, normal except for the left upper extremity which hangs lifeless. There is some power in the serratus magnus, contraction of which (with trapezius) throws the extremity slightly forward. The soft tissues are flabby, and the extremity is cold. The muscles show reaction of degeneration. A large indurated mass can be felt on the left side of the neck at the site of the brachial plexus.

Operation.—June 8, 1905. Ether anesthesia. The plexus was exposed. The deep cervical fascia was much thickened and adherent to the entire front of the brachial plexus, which was a dense mass of cicatricial tissue, with the nerve roots running into its upper end and the nerve trunks coming from it below the clavicle. The nerve roots of the entire plexus were divided above the cicatricial mass (nearly at the intervertebral foramina). The plexus was dissected out *en masse* and removed by dividing the nerve trunks at their exit from its distal end beneath the clavicle.

The severed nerve ends could not be approximated closer than 2 cm. to the nerve roots, so loops of chromicized catgut (No. 1. 40 days) were passed between the two. Around the whole series of loops Cargile membrane was wrapped to form a single large canal. The wound was closed without drainage, and the neck and shoulder were fixed and held in close proximity for six weeks. The reaction was good. The wound healed by primary union.

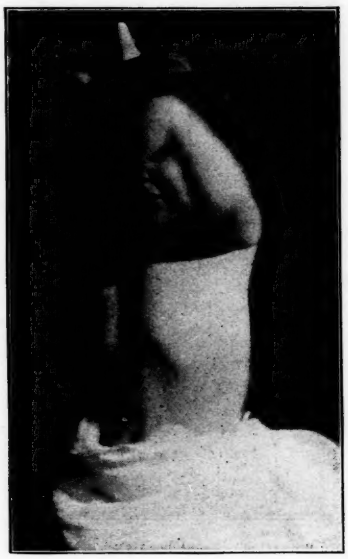


Fig. 4.—Shows power to elevate the extremity.

After her return home she was presented for examination only at long and irregular intervals. At the end of three months the muscles were more flabby than ever, the shoulder was a flail joint and there was no sign of returning power. December 4, 1905 (six months), the mother first noticed that the terminal segments of the thumb and first three fingers were swollen, red, glossy and ulcerated on the tips. They were not sensitive and were not infected. The mother reported that after six weeks more, sensation gradually returned, and the finger condition then improved. While this trophic disturbance of the fingers was present, there was slight but distinct activity in the pectoralis major, triceps and serratus magnus muscles.

May 21, 1906 (11½ months), the movements in the above mentioned muscles were stronger. There also appeared some power in the deltoid muscle, both for anterior elevation of the arm and slightly for abduction. There was slight power of flexion at the wrist (Fig. 2). When lying supine she could raise the extremity to the vertical position without much effort. The shoulder-joint had lost its flail character. The tissues of the extremity were firmer, warmer and of a more natural

3. Chir. du Systeme Nerveus, Paris, 1906, vol. vi.
4. Archiv. f. klin. Chir., 1904, vol. xxiii, p. 643.
5. Amer. Jour. Med. Sciences, October, 1905.

color. There was distinct flexion contracture of the fingers. The massage ordered had not been given.

October 27, 1907 (28½ months), the flexion contracture of the fingers had entirely gone. The tips of the thumb, index and middle fingers were still somewhat red and shiny. The extremity was growing well, and had a good color and warmth. Sensation was about normal (Fig. 3). For the last six months she had used the extremity freely, handling playthings, helping to feed herself, etc. Power had returned in varying degree to all the muscles, least in the flexors of the fingers and extensors of the radial carpus. The mother states that both the power and range of motion increase as time goes on, and that most of the improvement has occurred in the last six months (Figs. 4 and 5). The hand is beginning to develop power, but this is not indicated in the pictures.

This case represents the successful bridging of a 2 cm. gap in each of the roots of the brachial plexus by means of the *suture à distance,* combined with a modified tubulization due to the use of the Cargile membrane. The case was a most favorable one because of the very excellent general condition and the age of the child. It is well known that nerves grow and regenerate far more vigorously during infancy than at any later period.

Nerve tissue bridges a gap at the rate of ¼ mm. per day.[6] While cases of successful bridging have been reported where the interval was so great as 7.5 cm.,[2] as a rule failure will follow an attempt to bridge more than 4 cm. interval.[6] When a gap larger than 4 cm. exists recourse may be had to one of two procedures: (a) Implantation of both ends of the damaged nerve into a neighboring motor trunk (proximal end as well as distal end, because there is some growth of fibers from the proximal end, along the nerve trunk into which it is implanted). (b) Resection of sufficient bone to allow the nerve ends to be apposed directly by suture. This method is indicated where the paralyzed nerve has a large and important muscle-field.

In cases similar to the one reported, including cases of traumatic rupture of the brachial plexus in adults, where reasonable approximation of the nerve ends can not be obtained, it is my personal opinion that the clavicle should be divided near its middle and the fragments allowed to override so as to permit of close approximation or direct apposition of the nerve ends. Certainly, an extremity with returned muscle-power, even at the expense of great deformity of the clavicle and shoulder, is much to be preferred to one which is permanently paralyzed. After nerve regeneration has occurred, and voluntary motion is returning (1 to 2 years), the clavicle may be restored as far as possible to good position by open operation with partial resection if necessary.

In dealing with the surgery of nerves one thing can not be emphasized sufficiently, namely, that from the time of paralysis the tissues of the affected region must be kept in as good condition as possible by means of massage, electricity, passive motion, etc., in order to prevent fibrous degeneration of muscle, contracture of muscles and ligaments, resulting in deformity, and the irregular forms of the bony joint-surfaces due to growth in abnormal positions. Obviously, the same means must be used after operation until regeneration has occurred.

Authentic cases of nerve regeneration with return of motor power have been reported where the paralysis has continued for five, ten, fifteen and even twenty-nine years before operation. While nerve power may return after indefinite periods of paralysis, it is easy to understand how the results of operation, both as to promptness and completeness, may be interfered with or entirely nullified by changes in the structures other than nerves, due to neglect of the above mentioned precautions.

Since moderate delay under proper conditions does not prejudice the return of nerve function in those debatable cases where the gap to be bridged is so large as to necessitate a choice between *suture à distance,* lateral implantation, and resection of bone, the *suture à distance* may be tried. If after a reasonable time, there is no return of power, either of the remaining methods may be tried, according to the indications previously outlined.

SUMMARY.[7]

1. The literature of nerve surgery is not well indexed; case reports give results in very general terms, often because of the difficulty of tracing cases and making systematic examinations over the long periods of time necessary.

2. Much experimental work is still necessary to determine the best technic for the solution of the various problems in nerve surgery.

Fig. 5.—Shows flexion at elbow, combined with supination of forearm and hand.

3. Nerve defects can be bridged. Judging from the material at hand, *suture à distance* offers the simplest and most successful method.

4. The younger the patient and the better the general condition, the more hopeful is the result.

5. Results come only a long time after operation, and depend for completeness on massage, passive motion, electricity, etc.

6. Probabilities are against the bridging of gaps greater than 4 cm., although a few cases are reported.

7. For defects larger than 4 cm., resection of bone or lateral implantation of nerve ends may be used. Good

6. Ehrmann: L'etude de la suture de nerfs à distance, Paris, 1896.

7. The following references may also be consulted in connection with this subject: Spitzy (H): Amer. Jour. of Orthop. Surg., vol. ii, Aug. 26; Wien. klin. Wochschr., 1905, xviii, p. 57; Zeitschr. f. Orthop. Chir., 1905, xiv, p. 672; Zeitschr. f. Orthop. Chir., 1904, xiii, p. 326. Von Auffenberg (F): Arch. f. klin. Chir., 1907, lxxxii, p. 615. Taylor (A. S.): and Prout (T. P.): THE JOURNAL, Jan. 12, 1907. Rau (N.): Liverpool Med. Chir. Jour., 1903, xxiii p. 277.

muscle power with bone deformity in an extremity is much to be preferred to complete or serious paralysis.

NOTE.—After this paper was written Hashimoto and Tokuoka (*Archiv. f. klin. Chir.*, lxxxiv, 2, 354) reported 50 cases of nerve repair with use of Foramitti's formalinized calves' arteries. These persist two months or more and do not cause tissue irritation. No successful case of bridging by their use was reported.

Clinical Notes

CASE OF MIXED CELLED SARCOMA.

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ZANESVILLE, OHIO.

Patient.—Ambrose G., American born, of German parentage, age 19, white, an ironworker.

Family History.—Father living, fine physique and health, aged 45. Mother died at 30 from diabetes. (?) No brothers or sisters; no aunts or uncles afflicted with tuberculosis or cancer.

Fig. 1.—Head of patient with mixed celled sarcoma.

Personal History.—Never ill, except with diseases of childhood. On Nov. 22, 1904, a small wine colored nevis was removed from the right temporal region at the margin of the temporal hair line, under local anesthesia. The wound healed fairly well, but would seep a watery secretion when irritated by cutting or combing the hair. General health excellent, a strong, well-knit, muscular man, height 5 feet 9 inches, weight 148.

History of Disease.—On March 4, 1906, the patient came under my observation complaining of weakness in the legs and a feeling of uncertainty while at work, which he said was progressive. At times he would fall over while at work. During this interval, a small tumor-like mass made its appearance just below, or about at the temporo-maxillary joint on the right side, and a little later another appeared just below the middle third of the clavicle, on the same side. During this period the patient attempted to work, but could only put in part time, due to the vertigo, the loss of power in the lower limbs, and the disturbance in co-ordination, until finally he became unfitted for work.

Physical Examination.—He was admitted to the Good Samaritan Hospital, May 2, 1906. Pulse, temperature and respiration were normal. At the time of admission, the tumor-like masses had increased in size and in number. They varied in size from an English walnut to the size of an orange. These small growths followed along the direct lymph chains, and were situated quite superficially under the skin and subcutaneous tissue. In color they were deep mahogany, and glistened, due to the stretching of the skin covering. They had a great vascular supply, but at no time did they break down. The patellar reflexes were exaggerated. The pupils were normal. His gait was cautious, and of a rolling character. The urine showed nothing abnormal. The blood was not examined.

Microscopic Examination.—A section of one of the tumors from the anterior part of the chest wall showed many cells containing large round vesicular nuclei, also spindle cells, with vesicular nuclei, and small round cells. The intercellular tissue, instead of being wavy, was straight.

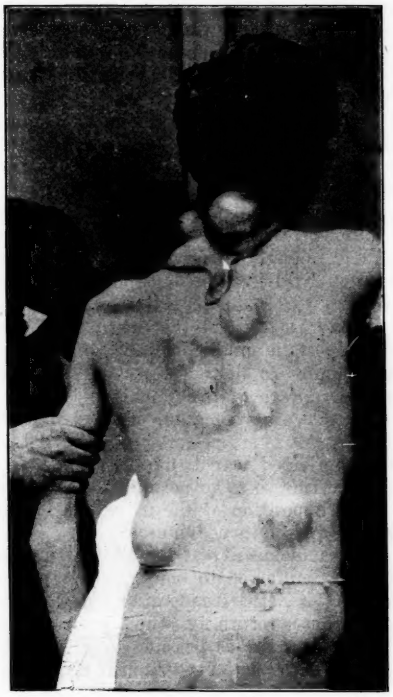


Fig. 2.—View of back of patient with mixed celled sarcoma.

Diagnosis.—Mixed celled sarcoma.

Course of Disease.—From the time of admission to the hospital to the time of death, which occurred July 25, 1906, there was a constant increase in the size of the growths, and in their number. The tumor masses in the omental chain of glands could be seen distinctly through the abdominal wall, and were very numerous. Emaciation became extreme, pressure pain from the presence of the masses in the abdomen, and behind the eye, which from the intraorbital pressure was bulged out beyond the plane of the supraorbital arch, was severe. Postmortem was refused.

The photographs were taken two days before death, and serve to give a fair illustration of the size and the extensive distribution of the growths over the body.

For the very excellent photographs I am greatly indebted to Dr. H. R. Geyer.

A CASE OF UTERINE MYOMA.

GOETHE LINK, M.D.
Associate Professor Indiana University School of Medicine.
INDIANAPOLIS, IND.

At this time of early diagnosis and surgical activity it is unusual to find large uterine myomata. The following case is of interest because of the size of the tumor, the large number of separate nodules, and because of certain difficulties met with in its removal.

Patient.—Woman, aged 39 years. Menstruation had always been regular since the thirteenth year, but very painful. She was married at 31 years, but never conceived.

History.—Four years ago she noticed a tumor in her abdomen and felt pain in the stomach. A diagnosis of tumor was made by a physician at that time. Menstruation became more and more painful, and two years ago metrorrhagia appeared. During one of these attacks of painful menstruation, the patient claims she was presented at a clinic where an obstetrician attempted to turn the supposed fetus. One year ago she began having attacks of urinary retention requiring relief by catheter. For the last six months before operation

Posterior view of tumor. The nodule at the lower right-hand corner shows the intrapelvic portion devoid of peritoneum. The nodule at the top was in the right hypogastrium in contact with the liver.

she was confined to bed complaining of pain in the stomach, vomiting and retention of urine, alternating with frequent urination. Asthma and bronchitis were present, bowel movements were regular, there were no piles, her feet and legs did not swell.

Examination.—This revealed a large nodular tumor without ascites. The general appearance was that of pregnancy at term. Bimanual examination showed the pelvis to be full, the cervix entirely obliterated, and the anterior and posterior fornices filled with a hard mass. Breathing was difficult, temperature was 100, and pulse 120. There was pain in the bladder, stomach and over abdominal region generally.

Operation.—The patient was taken to St. Vincent's Hospital, where the tumor was removed. In going through the belly wall, just before entering the peritoneum, the prevesical layer of fat was encountered reaching almost to the umbilicus. This was remarkable because found so high, indicating the height at which the bladder might be found. The omentum was adherent in several places. When the tumor was reached it was found to extend to the diaphragm by two nodular masses, one on each side of the spinal column. As the lower portion of the growth was solidly fixed in the pelvis it made delivery difficult. The incision was then extended upward to the point of attachment of the diaphragm to the sternum and after separating extensive adhesions and exerting much force, the tumor was delivered. An attempt was made to clamp and tie the broad ligaments, first on one side and then the other. Except for a very short distance this was impossible as the broad ligaments had been opened up in the development of the tumor, which had extended on all sides into the cellular tissue of the pelvis. The bladder was attached to a point higher than the umbilicus and was capped by a very large mass of veins. The recto-vaginal fossa was obliterated, being lifted up out of the pelvis. The main body of the tumor seemed to have developed in such a way as to occupy spac between the peritoneum and the pelvic floor. This had lifted the peritoneum upward and spread apart the mesometrium until all duplications of the peritoneum were smoothed out.

An incision was made just above the bladder and carried around the entir- mass. The bladder was stripped downward and the tumor enucleated from its peritoneal capsule. The uterine arteries were clamped and tied as they were dragged into view. As the right ovary and tube seemed normal, they were left in place. The left ovary was not identified. The peritoneal surfaces were hastily approximated by a few stitches and the abdomen closed by thirty through-and-through sutures. Except for an infection of the abdominal wound, convalescence was uninterrupted and the patient is now in a good state of health.

CONGENITAL ELEPHANTOID DYSTROPHY.

R. J. BEHAN, M.D.
PITTSBURG, PA.

H. E., aged 19 years; weight, 144 pounds; good family history, except that one sister has left internal strabismus and a few moles on the back of the neck. Four sisters and one brother are living and well.

Personal History.—Swelling of left leg and thigh and left arm, has been present from birth, but was first noticeably drawn to his attention about four years ago, when he was not able to get the regular size of trousers. He recently has had to have his trousers made to order. He has pain above Poupart's ligament, slightly above the swelling, on making sudden pressure, and he also has pain in the median line of the abdomen. The scrotum can not be raised without pain. The leg and arm have been getting larger, though for the last year he can not notice any marked increase in size. Hearing, digestion and urine are normal.

At from 7 to 10 years a large red spot, about 6 inches in diameter, would come on the internal surface of the thigh and would only disappear on the use of a "horse liniment." Patient had eczema of the leg about two years ago and it has recurred several times on the hand, usually in the summer. The same amount of strength is present on the left as on the right side. He perspires equally on both sides. The left hand is cold to the touch. On a cold day the left hand is warm, while the right hand is cold. Sensation in the left hand is normal. He suffers from headache on continued exertion.

Examination.—Nourishment fair; large mole on left side of face, external to and below the outer canthus of the eye. Left arm and hand are enlarged, the enlargement commencing at about the middle of the arm. Asymmetry of the face, right side being larger; the tongue is also larger on the right side; no change or deflection noticed on protrusion of tongue. Scrotum enlarged and edematous. Keloid growths present on the scrotum and also on the prepuce.

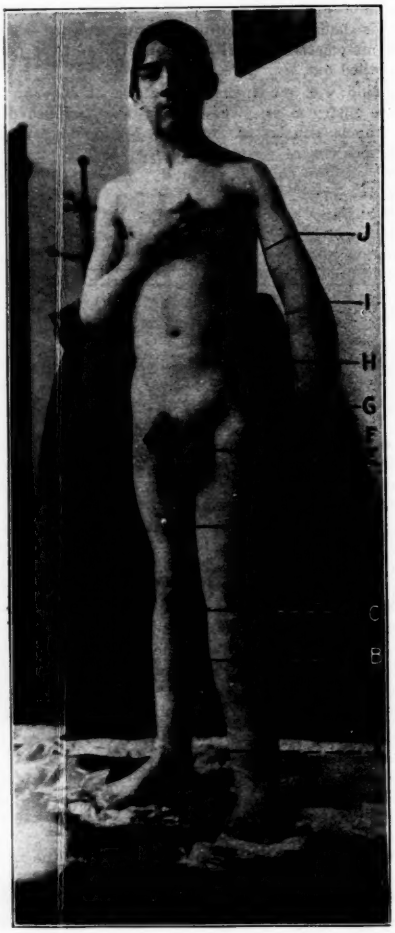
Blood Examination.—Dec. 12, 1907, hemoglobin 65 per cent., red blood corpuscles 6,480,000, leucocytes 7,600. Blood taken from the terminal phalanx of the right hand. Differential count—Right hand: Polymorphonuclears, 84.3 per cent.; large lymphocytes, 4.8 per cent.; small lymphocytes, 4.8 per cent.; eosinophiles, 3.6 per cent.; transitionals, 2.5 per cent. Left hand: Polymorphonuclears, 87 per cent.; large lymphocytes,

6.5 per cent.; one eosinophilic small lymphocyte was seen; eosinophiles, 6.5 per cent.; no transitionals. The red blood cells from the left arm were crenated.

This is a case which resembles elephantiasis very closely, and by some would be classed under that heading, but because of the following reasons I have classed it under elephantoid dystrophy.

1. The dystrophy is congenital and affects both the arm and the leg on the same side. In elephantiasis usually only one member is affected.
2. An inguinal hernia is present on the left side.
3. A mole is present on the left side of the face.
4. The tongue and right side of the face are both enlarged. The last three conditions indicate a congenital maldevelopment, and without doubt—it seems to me—the lymphatics of the affected limb are also in some way changed so that they are less permeable for the lymph stream.

All of these show the undoubted congenital origin, with the possibility of congenital lymphatic change.



Photograph shows how much larger the left arm and leg are than the corresponding members on the opposite side. It also shows the mole which is present on the left side of the face and the difference in size between the right and left side, the right side being the larger. The enlarged scrotum and the hernia are also to be noted. The measurements made were as follows: A—R, 9½, L. 14; B—R, 13, L. 20; C—R, 13¼, L. 17¾; D—R, 17¾, L. 21¾; E—R, 18¾, L. 21; F—R, 3¾, L. 11¼; G—R, 6¼, L. 9½; H—R. 8¾, L. 13¾; I—R, 8½, L. 11¾; J—R, 9, L. 10½.

SUCTION MASSAGE OF THE EARS.

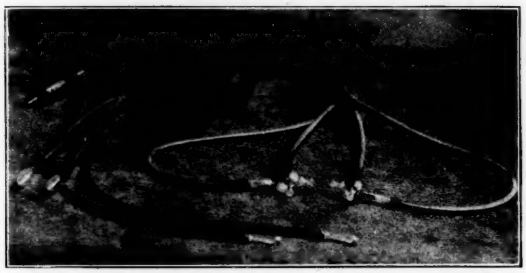
MAURY M. STAPLER, M.D.
Aurist to Macon City Hospital.
MACON, GA.

The instrument here described is for the purpose of manipulating and treating all the structures of the ear. It is in full accord with the pathologic requirements and latest scientific teaching. It is not offered to the profession as a "cure all," but rather as an advance over Politzer's method and the use of the hard rubber catheter. It is a safe palliative treatment to be used instead of an unsafe irritative one. As may be seen by the illustration, the instrument has five connecting branches of soft rubber tubing to which may be affixed a rubber air bag having hard rubber valves through which suction or inflation may be practiced.

The tips of the two longest branches should close the ears and should be held by the patient. Two shorter ones should close the nostrils of the patient and should be held lightly in the nose by the left hand of the operator. The bag is affixed to the remaining branch.

The patient should be instructed how to close the pharynx by holding the breath with the cheeks inflated full. (Do not blow through the nose.) Some patients succeed better by making the sound *ah* or by swallowing, and children close the pharynx when crying.

Suction should first be made to cleanse the tubes and accessory cavities of the head, i. e., middle ears, frontal, sphenoid, ethmoid, and maxillary sinuses; to cause artificial hyperemia; to move all the movable structures of the ears, thereby breaking adhesions and giving a thorough massage.



Suction apparatus for ear massage, with glass models of the ears attached.

The air bag should be held in the right hand of the operator and suction made in the usual way. Inflation should follow to dilate the Eustachian tubes and to reestablish the air pressure in the cavities. This may be done by attaching the inflation end of the air bag which contains a sponge or by attaching a compressed-air apparatus to the rubber tubing. Medication may be given at the same time from a sponge in the hard rubber medicator or from compressed air medicators. The ears are being properly reached only when the alæ of the nose are drawn down during suction and distended by inflation. The operator should then remove the instrument and with the palms of his hands tightly cover the patient's ears and pull the head upward strongly.

The special claims for the instrument are: It obviates the danger of blowing infected mucus into a closed cavity—the middle ear; it draws such matter away into the throat; it does not stretch the tympanic membranes, they are held passive in a rarefied or compressed atmosphere; it produces artificial hyperemia at the seat of the

disease, as cupping would produce artificial hyperemia in any other part of the body; it offers an effective, safe, and pleasant treatment of the ears.

The illustration shows two glass models of the ears attached to the instrument, by pressing the air bag and watching the movement of straws representing the ossicular chain and cotton representing the tympanic membranes and covering of the oval windows, the most important claims stated may be demonstrated to the eyes. By using Seigel's speculum the tympanic membrane may be seen to make an excursion outward, and when the membrane has been removed and a movable stapes has been left in position this bone has been observed to make a similar excursion outward. The conclusion is drawn, therefore, that removal of the air externally and internally from the ear causes an outward movement of the ossicular chain and tympanic membranes independently of any pulling on these membranes. A most important consideration, if true.

In some of the hospitals of Germany and Austria, some months ago, questions were raised, clinical material furnished and valuable assistance given to prove or disprove whatever was not clear in this method. For example:

1. It was questioned whether or not the Eustachian tubes would collapse under the suction as do the alæ of the nose, and it was decided that they would not, because the air is removed externally to their openings and there is no pressure to close them as in the case of the nose, which is subjected to the influence of the external atmosphere.

2. It was questioned whether or not, clinically, the stapes would move as was shown on the model, and this was satisfactorily proved by the use of Seigel's speculum in a case in which the membrane and the other two bones—malleus and incus—of the ossicular chain had been lost, leaving a movable stapes and open Eustachian tube.

3. It was questioned whether or not strong suction would prove dangerous, and suction was made with a strong pump until the nose bled; the hearing registered the same as before, and the patient had no pain of the ears, but some of the frontal sinus.

4. Its effects were tested on a patient with the Eustachian tubes tightly closed, and it was found that the suction gave comfort; inflation gave pain, because, the air being rarefied in the middle ears, suction relieved the pressure from without and inflation added thereto.

5. It was questioned whether or not the secretions would be drawn from the middle ears, so the nose and pharynx were cleansed thoroughly, and after suction mucus was seen flowing from the Eustachian tubes and frontal sinus.

6. It was questioned whether or not this method would relieve pain in acute cases; in some it did, in others it did not; but no reason could be given.

7. Tests were made to decide whether or not this procedure would benefit the hearing in hypertrophic conditions and improvement was claimed in every case.

8. The method was thought beneficial also in three atrophic cases and the results were attributed to artificial hyperemia. Good results were not obtained in two cases of disease of the auditory nerve.

I suggested to Professor Alexander, who is in charge of Professor Politzer's clinic in Vienna, that the medical profession might like to have an expression of opinion from him on the subject, and he replied in the presence of his class: "Tell them it is good, good, very good." I have a written indorsement from him also. We know that error long established takes on the garb of truth and he who essays to dislodge it has set himself a life work; nevertheless, I present this method to the members of the profession, believing that their discriminating common sense will prefer it to Politzer's method.

Acknowledgments are due to Dr. John B. McMahon of New York City for his valuable assistance rendered me in the hospitals of Germany.

STRUCTURAL CHANGES AND SURVIVAL OF CELLS IN TRANSPLANTED BLOOD VESSELS.

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ST. LOUIS.

When blood vessels, e. g., the carotid arteries, are anastomosed end to end, *in situ*, practically no change is observed in the histologic structure of the walls.[1] If the central end of an artery, e. g., the common carotid, be anastomosed to the peripheral end of a vein, e. g., the external jugular, the result is usually some alteration in the structure of both artery and vein, evidenced in the former by a decrease and in the latter by an increase in the thickness of the wall.[2] In rapid transplantation of segments of blood vessels in animals of the same species, with only a short interval of anemia of the segment,[3] as well as in heterotransplantations,[4] marked histologic changes occur, as a rule, in the segments, be they arteries or veins. Ordinarily this consists of a dilatation of the lumen and a thickening of the wall.[5]

Even in the simpler operation of end-to-end anastomosis of artery to vein, two important factors must be considered in accounting for these changes, viz.: (a) alteration of the functional circulation, consisting of a change of pressure in the lumen of the vessel; and (b) alteration of the circulation in the nutritional capillaries, i. e., in the vasa vasorum.

In the case of rapid transplantation of a segment of blood vessel in the same animal three additional conditions must be considered, viz.: (c) complete abolition of the circulation in the nutritional capillaries; (d) complete abolition of the lymphatic circulation, and (e) complete severance of nervous connections; while in the case of isotransplantations or heterotransplantations still another factor must be added, (f) in the former the possible and in the latter the probable toxicity of the host's body liquids for the segment.[6]

The transplantation of a segment of rabbit's aorta between the cut ends of a dog's common carotid artery may be taken as an illustration of the magnitude of the histologic changes that may occur, and yet the mechanical function of conveying blood remain adequate. Three weeks after the operation direct examination showed considerable enlargement and thickening of the segment.[7] After eight months the enlargement, both in

1. Guthrie: Demonstration before Am. Physiol. Soc., Chicago, Dec. 31, 1907.
2. Carrel and Guthrie: Surg. Gyn. and Obst., 1906, ii, 3, 275.
3. Id., p. 281. Carrel: Jour. Exp. Med., 1908, x, 1, 130.
4. Carrel: Jour. Exp. Med., 1907, ix, 2, 226. Guthrie: Am. Jour. Physiol., xix, 4, 482. Guthrie: Proc. Am. Physiol. Soc., 1907.
5. Id. Carrel: Jour. Exp. Med., 1908, x, 1, 130.
6. The view has been expressed by Carrel (Jour. Exp. Med., 1908, x, 1, 130) that the escape of blood into the tissues is a probable factor in the change observed in the wall. In my own cases, this may be excluded, as complete hemostasis before closure of the wound is invariably practiced.
7. Guthrie: Proc. Am. Physiol. Soc., 1907

diameter and length, was much greater and also the thickness of the wall, yet the mechanical functioning was good. The gross arterial appearance of the segment was vastly changed, the walls being greatly hardened and transparent. The intima was perfectly smooth and glistening. On section the increased thickening of the wall was found to be in large part due to an increase in the fibrous tissue. Here, then, we have excellent preservation of mechanical function, notwithstanding very great alteration in physical and histologic structure.

On examining a segment of dog's vena cava preserved for sixty days in 2.5 per cent. formalin, then washed in dilute ammonia, dehydrated in absolute alcohol, impregnated with paraffin oil, and then transplanted between the ends of the divided common carotid artery of a bitch, three weeks after the operation, the segment appeared much the same as the arterial segment above described did at the corresponding time, taking the difference in arterial and venous structure into account.[8]

The question naturally arises, therefore, do the cells of the segments of blood vessels actually survive, and by their growth and multiplication account for the histologic changes observed; or do they, to a greater or lesser extent, perish and only preserve the mechanical function of the segment, and serve as a bridge for the ingrowth of other cells after which they suffer degenerative and absorptive changes?

The work of Eiselsberg,[9] Christiani[10] and others would lead us to conclude, *a priori*, that even when replaced in the same animal from which it was removed only a thin layer of the outer cells in such a transplanted segment of blood vessel could survive. As to the intima, I know of no results obtained under exactly comparable conditions, that is, transplantation of similar tissues into blood vessels. The results of Busch and Van Bergen[11] on survival of cells of the suprarenal cells transplanted into the spleen might possibly be quoted in favor of survival of the intimal cells.

But in the case of the transplanted formaldehyd-fixed segment it is hardly conceivable that any of the cells could have survived, yet after a considerable interval it performs the mechanical function required of it and macroscopically differs not greatly from what would be expected of a fresh segment transplanted in similar fashion.

Unfortunately, premature conclusions seem to have been drawn concerning the survival of the cells of such transplanted segments of blood vessels.[12] From a purely practical standpoint it may be of no consequence, but scientifically it is of much importance. The problem is one of great complexity, and until a very material addition to the present data is made conclusions and generalizations should be held in abeyance, or, if uttered, disregarded.

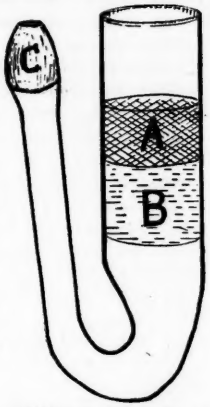
8. Guthrie: Transplantation of Formaldehyd-Fixed Blood Vessels. Science, 1908.
9. Wien. klin. Wochschr., 1892, v, 81.
10. Compt. Rend. d. Séances Soc. Biol., 1894, 716: 1900, 967. Id.: Arch. de Physiol., 1895, xxvii, 65. Id.: Jour. de Physiol. et de path. gen., 1901, 204.
11. Proc. Am. Physiol. Soc. Id.: Am. Jour. of Physiol., 1905, xiii, 16.
12. Flexner: Science, N. S., 1908, xxvii, 682, 130.

Relation of Breast Tumors to Lactation.—H. P. Cole, in the *Mobile Medical and Surgical Journal*, states that malignant tumors are rarely observed during lactation or just after. They generally begin some years after the last lactation, which is explained in part by the fact that cancer less frequently occurs between the ages of 20 and 30—the age at which lactation is most frequent.

A MIDDLE-EAR INSPIRATOR.

PERCY R. WOOD, M.D.
MARSHALLTOWN, IOWA.

Tinnitis aurium, which is frequently an annoying and persistent sequel to acute and chronic Eustachian and middle ear catarrh, is often permanently relieved by inflation of the middle ear for a prolonged period. This is not generally appreciated and many patients find a prolonged course of office treatment prohibitive for lack of time or means. I have devised for home use the instrument illustrated, which consists of a glass tube bent on itself. One extremity is shaped for insertion into one naris, while the other retains the medicament and is inserted between the lips. When charged and in place a sudden expiration forces the medicated vapor into the middle ear. Persistent application of this instrument for some weeks or months permanently relieves tinnitis and morbid pathologic conditions of the Eustachian and intertympanic membranes in a large percentage of cases.



Middle-ear inspirator. A, medicated cotton; B, oakum; C, rubber tip for insertion into naris.

The following solution is serviceable:

Chloroform	120	℥iv
Ether	60	℥ii
Alcohol	8	ʒii

Oil of rose, enough to scent.

PYLOROPLASTY (DUODENAL-GASTROSTOMY) FOR PYLORIC CONSTRICTION.

EDWARD N. LIELL, M.D.
JACKSONVILLE, FLA.

Pyloric constriction, of whatever nature, is a condition with which surgery alone can contend. Whether non-malignant or malignant, two methods of surgical intervention lie before us—that of pyloroplasty and of gastroenterostomy. The method elected in the following case is that known as Heineke and Mikulicz, the technic being slightly modified, however, to meet the indications present.

Patient.—Mrs. W., aged 39, 5 feet 3 inches tall, was reduced from a normal weight of 108 pounds three years previously to but 68 pounds nine weeks previous to my seeing her. She had become even more emaciated at the time of operation, and it seemed to me remarkable how one could live with such marked emaciation and so little degree of strength. Gradual progressive starvation was the prospect before her. For two years her diet had been liquid in character. During this time there was frequently in evidence a seeming muscular gastric spasm, not always associated, however, with eructation and vomiting.

Examination.—On examination there was felt in the region of the pylorus a dense movable mass, approximately the size of a lemon. Especially was this marked during the effort of regurgitation or of eructation. There were no symptoms of gastric or duodenal ulcer or of any malignant trouble. From the foregoing clinical picture I arrived at a diagnosis of pyloric constriction. An exploratory section was advised, and, further, if the conditions found and the patient's strength warranted, a surgical procedure to overcome the existing cause, to which the patient willingly consented.

Operation.—A slightly S-shaped incision, 4 inches in length, was made to the right of the median line above the umbilicus, which brought the pyloric end of the stomach plainly into view. On drawing the pylorus up into the abdominal opening, it was found of firm and dense consistence, its caliber being less than that of my little finger. There was no evidence of malignancy. A Heineke and Mikulicz pyloroplasty was the operation elected. An incision, 2 inches in length, was made in the axis of and through the anterior wall of the pylorus, extending slightly into the duodenum. The incision was then drawn tense transverse to the pyloric axis, thus considerably enlarging the lumen to that of one's thumb. Coaptation was then made by folding over the edges of the duodenum and pylorus, a double row of mattress Lembert sutures of 20-day chromicized catgut being used. The abdominal wound was then closed. No rise of temperature or untoward symptom followed on this operative procedure. The remote result, too, symptomatically, was very gratifying. She has since gained fully fifteen pounds. The time that has elapsed since the operation, four months, is as yet too short to make any positive statement as to permanent cure, though present indications point to that end.

HYSTERIA IN ITALIANS.

MAX BAFF, M.D.
WORCESTER, MASS.

During the past five years I was called to attend many cases of hysteria among adult male Italians. I find the French people are very prone to attacks of hysteria, but cases among the Italian people are more frequent. I will not attempt to give individual histories, symptoms, etc., of cases treated by me, but will describe them all collectively, for it is a fact that the causes, symptoms and treatment were almost identical in all of the cases.

Antonio B., 42 years old, born in Italy, married; family history negative.

Present Illness.—On Feb. 7, 1907, in the morning, he was playing cards with friends and seemed to be in a normal state of mind. Went home at 1 p. m. His son asked him to eat dinner, but he did not reply. He immediately went to bed and started to cry, seemed frightened at his friends who came in to visit him. He crouched himself up in bed, and apparently seemed to have lost his power of speech, as he flatly refused to answer any questions put to him by his son or friends.

His son, becoming alarmed at his father's loss of voice, hurriedly sent for me. One glance at the man told me that it was a case of hysteria. I asked him his name, but with tears in his eyes he stared at me and refused to answer. He then began to go through a series of funny contortions, stand on his head, grind his teeth (so vigorously that it could be heard in the next room), pull his hair and cry. Between these acts he would try hard to vomit and choke. His friends becoming alarmed at this state of affairs, repeatedly asked me if the patient was going to die. In the presence of the patient I admitted that he would. Going into an adjoining room, I explained the nature of the disease to his friends and told them that I was going to fool the patient by using a little stratagem; that some worry had brought on this attack.

I re-entered the sick room with three of the friends, and in a loud voice I announced that in order to save the man's life I would be compelled to amputate, then and there, his left hand at the wrist joint; that this was the only means of saving his life; that cutting off the hand would bring back his speech and cause him to regain his mind. So taking some scalpels out of my bag and calling for some hot water, towels, dishes, napkins and a cuspidor to contain the blood, and requesting two men to grasp the left hand of the patient, I was about ready to "cut" when my patient exclaimed in a loud voice, "Whata you wanta? I no sicka, I no needa a dottore." The rest was easy. He now answered all questions, and at once stopped all of his convulsive actions. He told me what the trouble was. His first wife died. He remarried and this second wife had left him alone with six children to look after, and furthermore, he was out of work a long time.

Without exception, every case among the Italians started in with loss of speech, convulsive movements, grinding of the teeth, pulling of the hair, sobbing, crying, etc. All the cases depended on some worry due to trouble in the family. Fathers, mothers, sisters and brothers left bekind in Italy caused the greatest worry.

Every patient was suddenly "cured" by giving him to understand that he was really a sick man, and that in order to save his life it was absolutely necessary to amputate his left hand immediately. Then, and then only, would the patient admit that he was not sick.

This line of treatment may not be applicable to all cases of hysteria, but I find that after trying the ordinary methods of treatment in this class of patients, namely, the laboring Italians, I do not get results anywhere near as satisfactory as I do in utilizing this method of artifice.

I have not heard of any recurrence of hysteria in any of the cases I have so treated.

Special Article

MEDICAL CONDITIONS ON THE LABRADOR COAST AND NORTH NEWFOUNDLAND.

JOHN M. LITTLE, M.D.
BOSTON.

To the general public in the United States and Canada Dr. Grenfell and his work are not unknown and need no introduction, but no paper, so far as I know, has appeared dealing with his work strictly from a medical standpoint. The following is written to bring his work before the profession in the hope that it may interest some who will be willing and able to help in the future should opportunity arise. The Mission to Deep Sea Fishermen maintains a hospital in North Newfoundland and three hospitals on the coast of Labrador. Dr. Grenfell travels these coasts by dog sledge in winter and in summer on his small hospital steamship *Strathcona*, visiting and operating not only at the hospitals but carrying medical aid and help in many forms to all the people on these long, desolate coasts. For accounts of how he does this, I must refer to other sources, simply stating that the work is supported by private contribution.

This paper (written from St. Anthony, Newfoundland), is intended to give a general idea of the medical work done, with some of its special points of interest.

The number of cases treated on board the *Strathcona* in the summer of 1907 exceeded 1,200. Besides these there were treated at each of the four hospitals maintained by the mission between 500 and 700 cases. Taking 600 as an average, the total number of patients for the five months, June to October, would be approximately 3,600. As I have not the exact figures from the other three hospitals, and communication is impossible at this time of year, I can not give the exact number, but this is, if anything, an underestimation. Before coming to this work I was told that it consisted in treating three classes of cases, indigestion, constipation and phthisis, their relative frequency being in the order named, with an occasional scattering case of interest, opening of boils, pulling of teeth, and a very occasional operation.

There is a doctor at each of the hospitals, but operative work, unless urgent, is done when the *Strathcona* reaches them. I believe that the clinic compares favorably with those in our hospitals at home.

There are three chief classes of patients, and each class presents certain peculiarities from a medical aspect. These are: 1, The Eskimos; 2, the all-the-year-round inhabitants; and 3, the schooner-men, and those brought down in ships for the summer fishing.

1. The Eskimos, while they have immense physical endurance, and can row or tramp all day and stand any amount

of cold, are peculiarly susceptible to any infective process, to changes of wind and weather, many having bronchitis on the slightest pretext, and they seem to have no resistance to any form of suppuration. They are also "bleeders," and hemoptysis is common without any physical signs in the lungs, or finding the tubercle bacillus in the sputum. It is also very hard to differentiate the incipient, but chronic cases of tuberculosis from certain cases of cough with hemoptysis which appear to be scorbutic. Menorrhagia is the rule among the women, and bleeding from the nose is almost universal in both sexes in the spring.

Consumption is common, but apt to be of the very chronic fibroid type. Dr. Nansen, in his First Crossing of Greenland, says: "The Greenlanders (Eskimos) seem indeed to have a remarkable power of resistance to consumption, for, though in their young days they may be so far gone as to suffer from violent spitting of blood, they may survive to a comparatively advanced age. I have myself seen men severely attacked by this symptom one day, and yet out in their canoes after seal the next." Rev. W. F. Doty, in his ninth annual report on the introduction of domestic reindeer into Alaska, 1899, says "hemorrhages from the nose and lungs are frequent." Dr. Sheldon Jackson, in the tenth annual report of the same series, gives an idea of the terrible effect of epidemics of measles, grip and pneumonia among the Alaskan natives.

These peculiarities seem not to be confined to the Labrador Eskimo, but are common to all tribes, this being another remarkable point of similarity between these so widely scattered people, together with their language, dress, habits, etc. Syphilis is prevalent and is seen in a severe form. The Eskimos being ignorant as to its character, and having no remedies, and syphilis being a comparatively recent acquisition, no tolerance has been established. They are also subject to an epidemic skin disease, which seems to have something to do with their food. This is, so far as I know, as yet undescribed, and I shall discuss it in a later paper when I have collected my photographs and material.

2. The all-the-year-round inhabitants are subject to the diseases caused by overcrowded houses and lack of hygiene, starvation, poor food and bad teeth. Multiple neuritis is common, scurvy is not uncommon, and rickets is universal in some degree, among the babies. Malnutrition is the rule. Tuberculosis is everywhere. The results of consanguineous marriages are evident, and in one small village an epidemic of hysteria, attacking every young girl in the place, fourteen in number, could distinctly be traced to this cause. Venereal disease is practically unknown among them. Grip traveled the length of the whole coast this summer, and was very severe.

3. Among those visiting the coast, indigestion and stomatitis are common, owing to the salt food used; also rheumatism, due to wet and exposure, conjunctivitis, pterygium and phlyctenular ulcerations, due to the salt water and wind. Pain in the back, due to strain, and furunculosis of the wrists, or so-called "water whelps," as well as functional dysuria and night blindness, may be classed as occupation diseases.

These, in a general way, are the main points of difference from a clinic at home. Taking up the diseases in their order of frequency, certain points of interest may be mentioned.

Indigestion seems almost universal. It is the acid dyspepsia, and in most cases runs hand in hand with constipation. Everybody here drinks tea, morning, noon and night, never any water. The lack of fresh food is also responsible. Among the majority, bread, tea and molasses, with occasionally salt beef or fish, is the diet the year round. The bad teeth, which are also the rule, are also partly responsible. I do not doubt, however, that gastric ulcer and gallstones may account for many of the most severe cases, and a more complete study would discover these.

The people seem to be peculiarly unintelligent with regard to medical matters, and it is impossible to elicit an intelligent history, or get an idea of symptoms from them unless you have them under observation in the hospital. It is a good deal like treating children, only without the advantage of the intelligent watchfulness of the parents. The use of "patent medicines" is universal, and not surprising, considering that there are no doctors, but the advertising in the local papers and sale by the traders of these things is shameful. Some of the remedies in use, and the practices in childbirth and other emergencies are just like what one reads of nowadays in histories of medicine, but whereas in history they seem amusing, in practice they cease to be so, and the suffering they cause is horrible.

Caries of the teeth is the natural result of the absolute lack of care which is prevalent, combined with the malnutrition. I have not seen a toothbrush in any house visited this summer. The children's teeth are worse than the parents, and this is noticed by the people themselves, who vaguely wonder at the cause.

Grip ran the length of the coast, and while severe did not leave permanent results, as far as I could judge. Rheumatism, due to the cold, exposure and wet, is naturally often seen, and often the typical form with heart involvement. Disturbances of metabolism, due to the malnutrition, seem to be a strong etiologic factor in the prevalent arthritis deformans. Improvement under proper treatment in the hospital is marked in this last condition.

Conjunctivitis, pterygium, phlyctenula and corneal ulceration are very common, owing to the exposure to wind and weather, and in adults, as in children, malnutrition plays its part. They seem to yield, however, to local treatment.

Of gynecologic cases not much will be said. There is an unlimited field for practice, owing to the ignorance and carelessness of the people. The confidence of the people is not easily won in these cases. A peculiar shame and habit of suffering these complaints as being the lot of women and part of their natural burden, causes them not to seek relief, which, in so many cases, would be so vast and easily afforded.

Pain in the back is very common in men and women alike, and is, I believe, generally due to strain. Their work is very heavy and continuous at times—among the men much lifting and hauling, among the women much bending over floors, tubs and stoves. That a large plaster or strapping affords immediate relief in almost all cases seems to bear out this conclusion.

Cough and phthisis are divided, because, owing to the lack of time, a microscopic examination of the sputum was impossible. The division is made on these lines. Where the physical signs and symptoms undoubtedly spelled phthisis, it was called such; where they did not, it was called cough, but treated as phthisis. Owing to their total disregard of hygiene, filthy habits of spitting everywhere, overcrowded, overheated, nonventilated habitations, and again, total ignorance and seeming indifference, tuberculosis, in every form, is rampant. Dr. Grenfell is waging mighty war against these conditions, and while it is discouraging at times, we hope for better conditions in the future. The campaign is one of education, as in our communities at home, but the conditions are much harder. In the treatment, of fresh air and sunshine there is plenty; of good food there is none; no milk, eggs, butter, etc., just tea, bread, molasses and salt beef.

Of boils and abscesses, superficial and deep, there are many, and the only care they get is bread and molasses poultice from the beginning to the end, whatever that may turn out to be. In consequence, some horrible cases of suppuration are seen, but one is impressed by their self-limited nature. The people seem to have a wonderful resistance to the toxins, and though the local destruction may be very great, and the suffering must be terrible, they seem to be able to hold out until the necessary antibodies are formed, and the process comes to an end. Though we do not often see at home such cases of advanced suppuration, I have not seen or heard of a death from septicemia following a "gathering," as they call it. With proper incision and drainage, these cases heal up very quickly. The chronic furunculosis of the wrists, kept up by the constant rubbing of the edges of the oil coats, soaked in salt water and fish gurry, is a very great source of misery.

Multiple neuritis is seen in both its forms and all its stages, from a slight weakness of the legs, with loss of knee-jerk, to complete paralysis of legs and arms with contractures. True beriberi is here. In one hut this summer three helpless, and two with swelled, painful legs and beginning of other symp-

toms, were found. Slight cases that apparently have completely recovered, but still have no knee-jerk, are common.

Stomatitis, ulcerative, affecting the lips and buccal mucous membrane is common. The inflammation of the mucous membrane is general. The ulceration starts on the lower lip, generally, and spreads marginally. It is progressive, but not deep, and remains until a change of secretion in the mouth, due to change of food or to some drug (potassium chlorate) constantly held in the mouth, is provided. The spongy and retracted gums, due to scurvy and bad teeth, are very common. Retention of urine is not uncommonly complained of by men in whom careful physical examination and examination of the urine fail to show any cause whatever, so I have supposed it to be a neurosis. These cases always occur among those living on vessels.

Night blindness is frequently met, either as a premonitory symptom of scurvy, or a sign of malnutrition, but sometimes neither of these conditions can be supposed to be etiologic factors. In almost all cases a previous history of snow blindness can be elicited. Night blindness is much feared, and knowledge of its symptoms and occurrence is universal. These last two troubles have been to me so new, and seemed so marked, that I have come to regard them as occupation neuroses.

Cataract seems fairly common, as do all senile sclerotic changes at a fairly early date. As causes of cataract two of the usual etiologic factors—alcohol and syphilis—can be eliminated, and the whole blame must be thrown on hard living and exposure.

That death from peritonitis is not uncommon, I feel sure from the accounts I elicited, but the appendix is something they have never heard of up here.

Hernia is, of course, frequent, but unless one of the serious accidents incident to its presence occurs, the doctor is not consulted. One patient on whom I operated for strangulation could only be made to admit symptoms of any kind dating back ten days, and yet the thickening around the neck of the sac showed its presence for a very long time.

Mental and nervous disorders, from insanity to hysteria, have already been mentioned as being common, and there is no doubt as to their cause.

Except among the Eskimo, venereal disease is practically absent. The only two cases of salpingitis I saw occurred in the same place, as did the one case of gonorrhea, and I hear from Dr. Stewart that there is one other place on the shore where gonorrhea was imported by an American vessel. While illegitimate births are common, promiscuous intercourse is rare, and therein, I believe, is the secret of their freedom from this scourge.

Besides the numerous minor operations that are continually necessary, 33 major operations were performed during the months, July to October. Among these we had one death from inhalation pneumonia following a radical operation for cancer of the breast. One result is unknown, the patient, a boy with halux equino varus, having been taken home against advice without retention apparatus. The others are all at home and well. The average of two major operations a week should increase, as the people are beginning to learn what can be done at the hospitals, to lose their fear of anesthesia and to have confidence in surgery. Each patient cured and sent home acts as missionary to that community, and more and more do the mail boats bring surgical cases, and from further and further off.

I think I have said enough to point out the general character of the work from a practical side. There are many chances for work along special lines and for investigation, which have suggested themselves during the summer. Time alone was lacking. One is dependent entirely on oneself up here, and that is a stimulus which should be invaluable, and which, I think, is too often absent in the work at our large centers, to the detriment of those who require a broad foundation for future special work, and also of those who will eventually have to shoulder the responsibilities that the profession sooner or later inevitably entails.

317 Marlborough Street.

New and Non-Official Remedies

THE FOLLOWING ARTICLES HAVE BEEN TENTATIVELY ACCEPTED BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR INCLUSION IN THE PROPOSED ANNUAL, "NEW AND NON-OFFICIAL REMEDIES." THEIR ACCEPTANCE HAS BEEN BASED LARGELY ON EVIDENCE SUPPLIED BY THE MANUFACTURER OR HIS AGENT, BUT TO SOME EXTENT ON INVESTIGATION MADE BY OR UNDER THE DIRECTION OF THE COUNCIL. CRITICISMS AND CORRECTIONS ARE ASKED FOR TO AID IN THE REVISION OF THE MATTER BEFORE FINAL ACCEPTANCE AND PUBLICATION IN BOOK FORM.

THE COUNCIL DESIRES PHYSICIANS TO UNDERSTAND THAT THE ACCEPTANCE OF AN ARTICLE DOES NOT NECESSARILY MEAN A RECOMMENDATION, BUT THAT SO FAR AS KNOWN IT COMPLIES WITH THE RULES ADOPTED BY THE COUNCIL.

W. A. PUCKNER, SECRETARY.

(A list of all accepted articles is published on one of the advertising pages of The Journal in the first issue of each month.)

(Continued from page 963.)

VEROFORM ANTISEPTIC.

A liquid containing 6 per cent. of formaldehyde gas dissolved in a solution of soap.

Neutral soap is liquefied by heating paraformaldehyde and soap in an autoclave. By filtration a clear stable solution of formaldehyde in soap is obtained.

Veroform antiseptic is a yellowish liquid. If exposed to low temperature it becomes cloudy owing to a crystallization of fatty acid salts, but clears up again in a warm room without decomposition. It is practically neutral; it is incompatible with the alkaline earths and heavy metals, also with acids. It mixes with water in all proportions.

Tests: See veroform germicide.

Actions and Uses.—See Veroform germicide. The preparation is approximately one-sixth the strength of Liquor formaldehydi, U. S. P.

Dosage.—A solution, containing 1.6 per cent., is said to equal in antiseptic value a solution of mercury bichloride, 1 to 1000. A solution containing 1 per cent. and over is used for sterilization of hands and of the field of operation.

Manufactured by the Veroform Hygienic Co., New York. U. S. patent No. 740,424. U. S. trademark "Veroform," No. 44,144.

Experiments by the council indicate that the expression "non-irritating" as applied to veroform preparations by the Veroform Hygienic Company must not be taken literally. The minimal concentration advised (corresponding to 0.090 per cent. CH_2O) produces a distinct and persistent irritation in the mouth, and Fischer (Journal of Experimental Medicine, vol. vi, p. 500-505), has shown that a 0.04 per cent. solution of formaldehyde causes local histologic lesions when applied to peritoneal, subcutaneous or muscular tissues.

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A liquid containing 20 per cent. of formaldehyde gas dissolved in a solution of soap.

Neutral soap is liquefied by the action of formaldehyde gas and the solution filtered.

Veroform germicide is a yellowish liquid. If exposed to low temperature it becomes cloudy owing to a crystallization of fatty acid salts, but clears up again in a warm room without decomposition. It is free from formic acid and practically neutral; it is incompatible with the alkaline earths and heavy metals, also with acids. It mixes with water in all proportion.

Tests: The amount of formaldehyde can be determined by the U. S. P. method of estimating formaldehyde in liquor formaldehydi if the time of interaction between hydrogen dioxide and formaldehyde be extended to one hour, and if to the volume of alkali consumed in the estimation there is added a volume of alkali equivalent to the alkalinity of the Veroform Germicide as determined in a separate experiment.

Actions and Uses.—Bactericidal and detergent. Its bactericidal action depends on the formaldehyde which it contains, but it is claimed that it is superior to other formaldehyde preparations because of the soap in which the formaldehyde is dissolved.

Dosage.—As it is approximately half the strength of Liquor formaldehydi, U. S. P., it should be given or used in twice the strength that is customary for that preparation.

Manufactured by the Veroform Hygienic Co., New York, U. S. patent No. 740,424. U. S. trademark "Veroform" No. 44,144; "Lysoform," No. 35,979.

(To be continued.)

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[For other information see second page following reading matter.]

SATURDAY, MARCH, 28, 1908.

A SOURCE OF INJURY FROM ILLUMINATING GAS.

The two chief products of combustion of coal and illuminating gas, carbon dioxid and water, being the same as the chief products of combustion in the animal body, are not appreciably injurious provided they are sufficiently diluted and removed with reasonable rapidity. The presence of sulphur in these sources of heat and light, however, leads to the formation of no inconsiderable amount of sulphuric and sulphurous acid, which may well be a source of considerable impairment of health. Every one who has the misfortune to live in a large city with a well-developed smoke nuisance is familiar with the extremely irritating quality of the air when, on moist days, the gases from the chimneys sink near the surface of the ground.

The *Lancet* in a recent editorial[1] has called attention to an interesting bit of experimental evidence of the presence of sulphuric acid in the products of combustion of ordinary coal gas. A simple test for the presence of free sulphuric acid in a liquid consists in streaking the liquid on a piece of white paper and drying the paper before the fire; as the paper dries and the acid becomes more and more concentrated the paper becomes charred where the liquid was applied. Over the ordinary gas light the ceiling paper shows always more or less discoloration, and after a time becomes charred, crumbles, and drops off; this is commonly attributed to the deposition of soot, when often it is really the effect of sulphuric acid formed in the combustion of the gas and deposited on the ceiling. The *Lancet* states that an examination of such paper showed it to be sour to the taste and distinctly acid in reaction, and analysis showed that there was as much as sixteen grains of sulphuric acid to the square foot of paper.

It seems probable that the presence of sulphuric acid from this source, in the course of time, may be a source of injury to the respiratory tract, manifesting itself particularly in catarrhal inflammations and non-resistance to infection. Water gas, as used in most places nowadays, would probably be the least harmful in this respect, for it contains a minimum amount of sulphur; but natural gas, particularly in certain regions, is peculiarly rich in sulphur, as the housewife, who tries in vain to keep the silver bright, appreciates fully. Soft coal liberates great amounts of sulphuric acid, as shown by the rapid corrosion of iron pipes that are called on to discharge the smoke, and in the vicinity of large factories the air on wet days must be well laden with acid vapors. This is a difficulty that it does not seem probable will be easy to remedy, for there is no feasible way of removing sulphur from coal and gas. It will vanish when the coal mines give out and we rely on water power, solar heat, or some yet undeveloped source of energy.

1. Feb. 8, 1908, p. 440.

THE HOUSING OF THE POOR.

The close connection between sanitary improvement and other social problems is not generally realized, and much effort toward sanitary improvement has been unfruitful because this intimate relationship has not been appreciated. In order to know the source of insanitary evils and their reciprocal effect on the social status of the people, a broad basis of fact must be gained by a thorough investigation of the condition of the people in all its phases. Such an investigation, a social survey of an American industrial city, is now being made by the National Publication Committee of *Charities and The Commons* and promises to be of great interest to physicians as well as to sociologists. Pittsburg has been chosen as one place for investigation because of the conditions of heterogeneity of population, marked industrial development and peculiar physical features. Some phases of the investigation are already completed and the papers[1] published indicate something of what has been done.

The topic most nearly allied to sanitary effort is the housing problem, which is thoroughly treated by Miss Elisabeth Crowell. The revelations given of insanitary conditions under which the laboring population dwell and under which children are born and reared is appalling. The description shows a terrible condition of overcrowding, with the persistence of insanitary arrangements for sewage disposal, the use of common privies by several families and frequently by passers-by, insufficient water supply and various other evils which favor disease and immorality. In some instances as many as eight or ten individuals were found living in one room. One house of thirteen rooms accommodated twelve families.

In trying to fix the responsibility for this state of affairs three parties may be named as primarily to blame: the renter, the landlord and the sanitary inspector. The renter often sublets or takes boarders until the overcrowding is beyond the landlord's control. Three causes may be assigned for this: a low standard of living, low wages and high rents. The same causes operate to secure tolerance of other insanitary features. On the part of the landlord there is a greed for profits which disregards the requirements of health and of decency and overrides the law itself. It is a striking

1. Charities and the Commons, March 7, 1908.

fact that some of the landlords most oblivious to the needs of their tenants are the great industrial corporations. The indifference of the landlord is, however, but a reflex of the indifference of the public. Many of the evils noticed are the result of neglect to comply with, or direct violation of, the law, and the responsibility rests largely on the officers charged with the enforcement of law, the sanitary inspectors and officers of health. Here also the officers are greatly hampered in their work by lack of sufficient appropriation and by indifference of public opinion. The true remedy for a condition of things which bids fair to become a disgrace to our country is, therefore, the formation of a live public opinion which will insist on better conditions and on the enforcement of law.

The Pittsburg situation should be a valuable lesson to other American municipalities. Most of these have already acquired their slum areas, and a campaign of reform and eradication is necessary. But for others prevention is still possible. This can be secured to a great extent by providing rigid restrictions in regard to utilizing old dwellings originally intended for one family as tenements without the installation of modern sanitary appliances. The enactment of proper laws and the rigid enforcement of existing regulations should prevent overcrowding and insanitary dwellings in most American cities. The time is ripe for arousing public opinion to activity in this direction.

THE MELODY CURE OF STAMMERING.

Considering stammering as a psychomotor disorder, a psychoneurosis or mental tic, we can understand how some of the methods of treatment hitherto devised have not been successful; they have concentrated the attention of the sufferer on his disability. The stammerer is able as a rule to speak normally or almost normally when alone. Any emotional excitement, however, such as attends the effort to converse with others, gives rise to a disturbance of the psychomotor mechanism which results in incoordination and excessive innervation of the muscular apparatus of speech. Emotions always call into action more complex activities than simple intellectual processes. They are invariably attended by motor cortical discharges. This accounts in part for the increased innervation.

To give proper compulsion, some advise the stammerer to beat time with one hand while speaking. This method, so far as it goes, is an excellent one, as it assists in sidetracking the excessive motor element. Rhythmic speaking is taught by others; but the use of rhythm alone, as a method of treatment, is not sufficient, as it fails, for example, to release the tightness of the larynx. The "deep-voice" method, and the method of extending the vowels to a greater length, result in an abnormal voice which can not be sustained. These and various other methods have hitherto been in the hands of the lay teacher.

Lately a new method of treatment has been devised by Scripture of New York, who recognizes the condition as one of "superenergetic phonation." Further, he has noted that all stutterers and stammerers speak in a monotone, whereas a normal person constantly slides his voice up and down the scale, never keeping it on the same tone even for an instant. Scripture's so-called "melody cure" rests on this fact. He finds it sufficient for the cure of most stutterers and stammerers merely to train them to slide the voice up and down, that is, to speak melodiously. This training can readily be accomplished by the physician, especially if he has witnessed one or two demonstrations. The theory of the cure is simple: the patient learns to speak with a new voice, i. e., a different set of vocal adjustments quite unconnected with the compulsive idea that made him stutter.

RELATION OF THE LIVER TO METABOLISM.

The relation of the liver to metabolism is a problem important to both the physiologist and the pathologist. For a long time it has been recognized that one of the functions of the liver is connected in some way with the destruction or removal of poisons from the blood, especially such poisons as are produced in or absorbed from the alimentary canal. It was early recognized that destruction of the liver cells leads to serious poisoning, and this was experimentally demonstrated by Eck, who excluded the liver from the circulation by making a direct communication between the portal vein and the inferior vena cava, an operation known as an Eck fistula. The results of this operation were the production of toxic symptoms which bore a more or less close resemblance to the symptoms of uremia, and it has been hoped that the study of the metabolism under such conditions would give a clue to the nature and source of uremic poisoning.

There has been considerable difference of opinion as to the toxic agent in the blood of such animals. Pawlow and his associates found that the symptoms arose when meat was fed to the animals, and similar symptoms were produced by the injection of sodium carbamate into normal animals; the results were attributed to carbamic acid. Some of Pawlow's experiments indicated that the toxic agent was not ammonia, as had been suggested by Salaskin. P. B. Hawk,[1] experimenting with dogs in which an Eck fistula had been established, recently found that while toxic symptoms usually followed a diet containing a large amount of meat, this result was not always produced even when the autopsy showed that the liver had been fully excluded from the portal circulation. When Liebig's extract was added to the meat diet toxic symptoms followed, including ataxia, tetanus, catalepsy and paresis, and in some cases complete anesthesia and total loss of

1. Am. Jour. Phys., xxi, No. 2.

sight and hearing. No toxic symptoms followed the feeding of a meat-free diet, even when supplemented by the addition of Liebig's extract. Sodium carbamate did not produce these symptoms in the Eck fistula dogs nor were such symptoms produced in normal dogs by the addition of sodium carbamate or Liebig's extract to a meat ration. The dogs operated on sometimes became extremely nervous, restless and irritable, and invariably lost weight, the loss ranging from 14 to 42 per cent. The animals after recovering from the toxic symptoms refused meat. The feeding of carbohydrates to such animals was not followed by glycosuria nor was albuminuria induced in them by the feeding of Liebig's extract.

It is evident that the toxic symptoms owe their origin to a combination of meat with some of the constituents of the Liebig's extract. It is probably too early to apply these results with confidence to clinical problems, but they suggest the propriety of caution in the use of meat extracts in autotoxic conditions and in nervous states which resemble these experimental phenomena. This conclusion is sustained by clinical experience in the treatment of epilepsy, a disease which at one time was attributed to poisoning with carbamic acid.

HEREDITY AND TUBERCULOSIS.

Professor Karl Pearson,[1] than whom there is no higher authority on biologic statistics, finds that his researches on the incidence of pulmonary tuberculosis rather favor the presumption of heredity being a leading if not a dominant factor. It is impossible, he admits, to assume, with the present insufficient data, that any disease is inherited in the same sense that physical and mental characteristics are inherited, but if inheritance of a consumptive tendency or diathesis is not assumed, it is difficult to explain the facts, or to see how any one escapes with the actual universal distribution of the infection, especially in dense populations. Few individuals, he says, who lead a moderately active life can escape an almost daily risk of infection. Another fact pointing the same way is that the average age at the onset of the disease is practically the same in all cases, whereas with the infection theory, pure and simple, it should occur earlier when a constant possibility of infection exists, as, for instance, in families where some member is a sufferer from the disease. Statistics show only an insignificant difference in such cases. The present tendency to magnify the infection factor at the expense of the formerly more generally accepted view of the importance of heredity in the spread of pulmonary tuberculosis is, we think, largely based on *a priori* grounds. When consumption was demonstrated to be due to microbic infection there seemed to be little need of invoking any other agency. Another thing favoring the change of view was the apparent better prognosis afforded, and further we may perhaps consider the advocacy of the infection theory as somewhat prompted by ideas of expediency as falling more readily in line with the active campaign against "the great white plague."

For a biometric authority like Professor Pearson to magnify the importance of heredity in tuberculosis is, however, significant and should tend to modify some of the radical utterances that consumption is not and can not be, in any proper sense, hereditary. Another fact brought out by Professor Pearson is that, while the offspring of consumptives are not less fertile and in all probability are even more fertile than those of normal heredity, the fact that consumption is pre-eminently a disease of youth and early middle life, lowers the marriage rate and the period of fecundity, and thus tends to lower the normal birth rate of a community.

Another fact shown by his figures is that constitutional tendencies and defects are more likely to be inherited by the first or second children in a family than by those later born. This has an important bearing on the question; if consumptives tend to die before raising large families, the children they do have are the more likely to inherit the predisposition to their disease and the tendency of the stock to become extinct is enhanced. It also points to a disastrous effect of the Neo-Malthusian tendency to limit offspring, which President Roosevelt and others have so strongly deprecated.

Of course it does not follow that an inherited predisposition is an inevitable death sentence by a fatal disease, the infection of which is practically ubiquitous; it only emphasizes the need of hygienic living and the cultivation of resistance. These, whether carried out by means of correct environment or by direct stimulation of the bodily resisting powers, are the methods of fighting tuberculosis that most promise success, and they can be aided rather than discouraged by a correct appreciation of the importance of hereditary predisposition in this disease.

1. A First Study of the Statistics of Pulmonary Tuberculosis, London; reviewed in Nature, Feb. 27, 1908.

MENTAL HEALING.

An article entitled "The Grain of Truth in the Bushel of Christian Science Chaff," by Mr. Charles Clarence Batchelder, in one of the popular magazines,[1] is especially interesting, inasmuch as the reflections it contains apply with equal cogency to every form of mental healing. The author displays in a clear and lucid manner, so as to be readily comprehensible by the intelligent layman, the fundamental physiologic principles on which the interaction between mental impulses and functional changes in the vegetative phenomena of life, e. g., the circulation, depends, and illustrates it by the control acquired by some over the blushing habit, by a process akin to the Eddyites' formula: "Deny error," etc. He quotes the experiments of Dr. Anderson, director of the Yale Gymnasium, wherein by means of a table so delicately balanced that it will move on the slightest breath, it is demonstrable that not only will the actual dancing of a

1. Popular Science Monthly, March, 1908.

jig by the subject of an experiment increase the blood supply in his lower extremities, but that even without rising and going through the movements, the mere thought of them is able to cause a determination of blood to the parts, indicated by the sinking of the bed at the foot just as occurs when the action has actually been performed. The author is careful, however, to indicate clearly the directions in which limitation of the results is inevitable. Finally, the independence of these results as regards any particular associated theory or religious tenets is shown in the statement that these measures "work just as well with a pagan religion as with a Christian one, as a physician can cure a Chinaman of malaria as readily as an American." It is, in fact, the state of being convinced, not the verity of the basis of conviction, that is the essential agent in the results effected by these perfectly natural measures—measures as purely physiologic as lowering of the head in cerebral anemia or the elevation of an inflamed part to assist gravity in the return blood flow, thus checking the tendency to blood stasis. The author expresses surprise that "the usually acute leaders of mental healing do not profit by the experience of the Catholics at Lourdes. The latter have every patient examined by trained physicians before mental healing is attempted. This gives an opportunity to eliminate the dangerous or contagious maladies, while at the same time furnishing proof of cure and establishing the nature of the disease."

A SECT IN EMBRYO.

Dispatches from New York convey the interesting intelligence that one Andrew McConnell of Washington has announced that any person may make himself not only sound, well and sane, but also very good, merely by regulating the electricity generated in his stomach and controlled by his brain. According to Mr. McConnell the stomach is a battery or dynamo, having alkaline and acid coatings which set up an electric current. The brain is the switchboard and the spirit is the hand on the switch. This theory, combining the mechanical ideas of osteopathy with some of the salient features of Eddyism, might be utilized for the establishment of a new sect. It certainly would have as many attractions as some of its predecessors. Its followers could be designated as "electro-gastrologists" or "dynamopaths." "Colleges" could be established at which "courses of instruction" could be given, provided the prospective students had money enough for both tuition and railroad fare, otherwise they could be accommodated with "correspondence courses." Some well-known local politician could be made "professor of medical jurisprudence," thus securing a "pull" with the state legislature. "Commencement exercises" could be held and some distinguished clergyman could be secured to deliver the "graduating address" to those who did not receive their "diplomas" by mail. The "degree" of "D. E. G." could be conferred and this imposing distinction could be used on signs and cards and in the great Sunday newspapers. Eventually, amendments to the medical practice acts could be introduced, either establishing an "examining board of electro-gastrologists," or placing a representative on the state board of health, "in order to protect the public from incompetent and untrained dynamopaths." Eventually, some wealthy retired merchant might be induced to endow a school or hospital of electro-gastrology, and the sect would then probably claim a place as a recognized part of our social organization. Thus would scientific knowledge be advanced and another chapter be added to the history of medicine. The natural history of the faker is interesting. All the possibilities mentioned above have actually occurred with certain other sects, and history is liable at any time to repeat itself.

CALCIUM IN TETANY AFTER PARATHYROIDECTOMY.

An interesting suggestion is made by W. G. MacCallum and V. Voegtlin[1] in regard to calcium in tetany. The observations of Loeb and J. B. MacCallum on the effect of calcium in inhibiting the muscular twitchings produced by various salts and also the good effects, noted by several observers, of milk in preventing tetany after parathyroidectomy proved very suggestive in this connection. MacCallum and Voegtlin found that by the intravenous injection of a calcium salt (5 per cent. solution of acetate or lactate) the violent symptoms of tremor, tachycardia, rigidity, etc., following parathyroidectomy may be almost instantly relieved and that the relief continues for twenty-four hours. Subcutaneous injection of the calcium and introduction by mouth act more slowly but are quite as effective. Magnesium acts much like calcium, but potassium intensifies the symptoms. Other studies tend to show that there is an increased output of calcium in the excreta and a decreased amount in the blood of the parathyroidectomized animal. The authors suggest that in some way, probably through the influence of their products on the central nervous system, the parathyroids control the calcium metabolism of the body. These results point, of course, to calcium in the treatment of postoperative tetany and also of tetany arising from other causes. If it be true that owing to a destruction of the parathyroids there is loss of control of calcium metabolism of the body, the condition is analogous to diabetes mellitus in which the destruction of the islands of Langerhans causes an abnormal sugar metabolism. MacCallum and Voegtlin suggest that the condition, therefore, might be termed "diabetes calcarius."

RAILROAD SURGEONS AND FREE PASSES.

The *Ohio State Medical Journal* for March states that a bill has been introduced into the Ohio legislature prohibiting railroad companies from issuing passes to surgeons for their services. There is no reason why the surgeon should be an exception in the antipass legislation which is becoming the common thing in several states. In discussing contract practice,[1] we said: "We are free to say that we consider that the prevalent custom among physicians in smaller towns on railroads, of accepting a position as railroad surgeon for the sole

1. Preliminary Note, in Johns Hopkins Hosp. Bull., 1908, 19, p. 91.
1. THE JOURNAL A. M. A., Dec. 14, 1907.

compensation of an annual pass, is belittling both to the individual surgeon and to the profession and many a good man has been ruined thereby. This should be eliminated by the surgeons themselves. Good work, properly done, entitles one to proper compensation. The railroads must have competent surgeons for their own protection. They are perfectly willing to get men on a transportation basis, since it is cheaper for them, but if they are not able to obtain good men on this basis they would prefer to pay cash rather than to accept the services of poorer men or to do without any medical services." The pass compensation plan puts professional services on a trade and barter basis, which is undignified and unworthy of either the medical profession or the railroad companies. Reasonable, adequate compensation in proportion to the work done should be demanded in all cases where good service is expected.

THE AUSTRIAN GOVERNMENT AND THE KEITH-HARVEY AURAL BATTERY FRAUD.

The campaign of the past few years in this country against nostrums and quackery has had the effect of driving a number of the more disreputable of these frauds to the British Isles. It must not be assumed, however, that all quacks found in Great Britain are of trans-Atlantic origin; London seems to furnish a fair quota. One of the largest advertisers in Europe is a "Professor" Keith-Harvey of London who sells what he calls an "aural battery" for the cure of deafness. With this instrument are sold the usual high-priced medicaments of negative value. According to *Truth*[1] the "professor's" real name is Edward Marr, but he adopts a cognomen suited to the dignity of his profession. Marr does not confine his fraudulent practices to those of a medical nature; as "Arnold & Butler" he operates a bucket shop in London. That city still tolerates him in both of his rôles for separating the fool from his money, but when he attempted to extend his operations to Austria he found a paternalistic government in his path. Largely through the recommendations of the Vienna Otologic Society,[2] the Austrian government has issued an order forbidding the importation of his fake "aural battery" into that country. While the *laissez-faire* attitude common to the Anglo-Saxon countries may, and doubtless does, develop those qualities essential to self-government, yet paternalism has its advantages. The "let-alone" doctrine leaves no small proportion of the population at the mercy of those sharks, medical and otherwise, who, while keeping within the letter of the law, perpetrate the cruelest of frauds on the sick and suffering. There are still a large number of civilized people who need to be protected against themselves.

1. *Truth's* Cautionary List, London, Eng., a publication issued annually by *Truth*, in which frauds of various kinds are exposed. This list is described on page 1065, this issue.
2. Vienna Letter, this issue, page 1052.

Differential Sign of Bone Tumor in the Radius.—E. Rochard calls attention in the *Bull. Gén. de Thérap.*, Nov. 15, 1907, to the superficial position of the radial artery in case of tumefaction of the bone. It is lifted up by the bone growth and its exaggerated pulsation differentiates a tumor in the bone when the lesion is in the lower end of the radius.

Medical News

CALIFORNIA.

Personal.—Dr. Benjamin Bakewell has been appointed health officer, and Dr. Henry L. Stambach, a member of the board of health of Santa Barbara.——Dr. Adolph J. Kahn, Napa, councilman, county physician and member of the Napa County board of health, has resigned as a member of the city board of health.——Dr. R. Gregory Broderick has succeeded Dr. Herbert Gunn as health officer of San Francisco.

Communicable Diseases.—There have been reported 30 cases of diphtheria, with 5 deaths, near Kings River.——Three cases of diphtheria are reported in the western part of Yuba City, and the school has been closed for one week.——The schools of Kennett have been closed on account of the prevalence of scarlet fever.——Several cases of smallpox are reported at Coalinga. The epidemic is said to have been started from an Eddyist home.——The San José board of education closed all the grammar schools and the high school March 5, to reopen March 19, on account of the prevalence of smallpox.——Several cases of smallpox are reported from Watsonville.

Hospital Notes.—Work has been commenced on the south wing of the Sisters' (Mater Misericordiæ) Hospital, Sacramento. The building will cost about $17,000, and will furnish the practitioners of the northern part of California with about 30 new rooms, a maternity ward and special rooms for delirious patients. The laboratory will be thoroughly equipped for chemical, bacteriologic and pathologic work. Dr. A. S. Musante was recently appointed resident physician of the institution.——The state department of engineering is making plans for a new receiving hospital for the State Hospital, Patten, to cost about $35,000.——A private hospital is to be opened at Santa Rosa, with accommodation for 21 patients, and is to be in charge of Drs. Samuel S. Bogle, Clark and Prince A. Meneray. ——Work is nearing completion on the new Santa Clara Hospital. The institution will accommodate 100 patients, with ample room for nurses, physicians and help, and will have cost, when finished, about $70,000.——The first hospital in Imperial Valley is to be opened in Imperial in April. A ten-room building has been leased and will be thoroughly equipped. ——Ground was broken March 2 for the annex to the Fabiola Hospital, Oakland, which will be two stories and a half in height and will cost about $50,000.——Almshouse No. 2, San Francisco, a three-story wooden structure, temporarily used as a county hospital, was totally destroyed by fire March 10. All of the 248 patients were removed uninjured, thanks to the coolness and bravery of the nurses and hospital attendants, and the prompt assistance of neighbors.

CONNECTICUT.

Epidemic of Measles.—Local physicians of Collinsville report that more than 300 cases of measles have occurred in the town.

Fire in Hospital.—A fire in Grace Hospital, New Haven, February 28, caused damage to the extent of $20,000, and necessitated the transfer of more than 40 patients to other hospitals. No casualties occurred.

Hospital Staff Announced.—The personnel of the medical staff for the new St. Mary's Hospital, Waterbury, was announced March 8. Dr. Bernard A. O'Hara is to be president of the medical staff; Dr. Nelson A. Pomeroy, vice-president; and Dr. John D. Freney, secretary.

ILLINOIS.

Smallpox.—Henderson County reports smallpox in the Olena neighborhood, where the school and church have been closed. ——Three cases of smallpox have occurred among the patrons of two hotels in Chenoa.——Several cases of smallpox are reported at Flora.

Fined and Appeals.—Dr. Harriet Hook of the staff of the Illinois State Asylum for Feeble-Minded Children, Lincoln, who was arrested March 12, it being alleged that she entered the home of a former inmate of the asylum in disguise, is said to have been found guilty March 21 and fined $10 for disorderly conduct. She refused to pay the fine and took an appeal.

Personal.—Dr. William H. C. Smith, Godfrey, has been appointed trustee of the Illinois Asylum for Feeble-Minded Children, Lincoln.——Dr. Stephen V. Balderston has been appointed commissioner of health of Evanston, to serve during the absence of Dr. William R. Parkes in Europe.——Dr. Henry G. Schuessler, health commissioner of Joliet, fell while making a call recently and sprained his ankle.

Medical Library for Joliet.—The Will County Medical Society held a banquet in Joliet March 17 in honor of Dr. Carl E.

Black, Jacksonville, and Dr. Malcolm L. Harris, Chicago. The former delivered an address on "Medical Libraries." Both Dr. Black and Dr. Harris told of the establishment of libraries for physicians and dentists in various cities of the country, and of the benefit to be derived from them. The proposed library for the society will contain about 28 medical journals, and it is expected that space will be allotted for it in the public library building.

Chicago.

Hospital Corporation Dissolved.—It is reported from Springfield that the Lake View Hospital Corporation has been dissolved and Dr. Olander E. Wahl has relinquished his position as head of the institution.

Correction.—THE JOURNAL is requested to announce that the item in issue of March 21, "Unlicensed Practitioner Fined," was incorrect in name and address, as the individual fined was J. C. Hyer, not J. C. Dyer, and as his residence is not 6509 Minerva Avenue.

Communicable Diseases.—Of the chief communicable diseases 176 cases were reported, as compared with 184 in the preceding week and 334 in the corresponding week of 1907.——Two new cases of smallpox were discovered during the week and the patients were taken to the Isolation Hospital. Neither had been vaccinated. There are now 11 cases of smallpox under treatment at the institution.

Low Death Rate.—The death rate for the week ended March 21 was equivalent to an annual mortality of 15 per 1,000 of population. This rate is 2½ per cent. lower than the preceding week; 6.7 per cent. lower than the corresponding period of last year; nearly 20 per cent. lower than the average March rate for thirty years, and more than 5½ per cent. lower than the average March rate for the last decade.

Deaths of the Week.—Of the 623 deaths reported during the week ended March 21, 111 were attributable to pneumonia, 72 to tuberculosis, 50 to heart diseases, 38 to acute intestinal diseases, 36 (including 12 suicides) to violence, 32 to nephritis, 31 to bronchitis, and 26 to cancer. Acute contagious diseases caused a total of 17 deaths during the week, as compared with 26 the preceding week and with 46 during the corresponding week of 1907.

To Insure Pure Water.—Health Commissioner Evans, in a letter to Mayor Busse, calls attention to the danger of pollution of the water supply of the city, from the neighboring lake cities, and asks for aid in securing a commission to investigate and report on this matter. Dr. Evans suggests that the commission be composed of one member, to be appointed by the federal health department; one by the war department; three from Chicago, to be named by the mayor; one from towns north of Chicago, to be named by Governor Deneen; two from Milwaukee, to be named by its mayor; one from Grand Rapids, to be named by its mayor; one to represent Hammond, Whiting and East Chicago, Ind., to be named by the mayors of these cities; and one each from Wisconsin, Indiana and Michigan, to be named by their respective governors.

INDIANA.

Personal.—Dr. Theodore F. Seymour has been appointed secretary of the Mishawaka Board of Health.——Dr. Charles L. Wright, Huntington, was operated on in Chicago, February 26, for the removal of gallstones.——Dr. Warren D. Calvin, Fort Wayne, has been reappointed physician of the Allen County jail.——Dr. William G. Wegner, South Bend, has been reappointed secretary of the St. Joseph County board of health.——Dr. Franklin W. Hays, Indianapolis, is reported to be critically ill in Los Angeles.

Cited to Appear Before Board.—The State Board of Medical Registration and Examination, at its session in Indianapolis, February 25, cited Celia M. Haines and E. D. Smith of Benton County and Herman Rice of Lake County to appear on April 7, to show cause why their licenses as physicians should not be revoked.——Harry W. Hicks, formerly of Muncie, is also said to have been cited to appear on the same date to answer to a charge of aiding and abetting a fraud, the "Boy Phenomenon," an alleged hypnotic healing combination.

IOWA.

Dispensary Opened.—A free dispensary has been opened in the building of the Volunteers of America, Des Moines.——Dr. Arthur C. Hutchins is chairman of the medical board.

Practiced Without a License.—Alexander Hall, Colfax, is said to have been found guilty, March 5, of practicing medicine without a license. The case will be appealed to test the constitutionality of the state medical law.

Society Meeting.—At the annual meeting of the Southwestern Iowa Medical Association, held in Creston, February 21 and 22, the following officers were elected: President, Dr. David C. Brockman, Ottumwa; vice-president, Dr. Frank P. Culverson, Greenfield; secretary, Dr. John W. Reynolds, Creston (re-elected); and treasurer, Dr. Joseph P. Claybaugh, Creston (re-elected).

KANSAS.

Unlicensed Maternity Home.—Dr. U. S. G. Hughes, proprietor of a maternity hospital in Kansas City, is said to have been fined $100 in a police court, March 3, for maintaining a private hospital, without a license.

Healer Leaves City.—"Prof." F. H. Peters, Iola, who was arrested February 22, charged with the illegal practice of medicine, agreed to pay the costs of action and leave the city, if the cases against him were dismissed.

Communicable Diseases.—Smallpox of mild type has appeared in Whitewater. The public school has been closed and strict quarantine has been established.——Smallpox is said to be prevalent in the southern part of Saline County.——Several cases of smallpox are reported at Leavenworth.——There are now 5 cases of smallpox in the Isolation Hospital, Wichita.——The State Board of Health reports that smallpox is making great headway in the state. In January there were 126 cases reported, and in February 459 cases; of these, 90 were in Atchison; 25 in Scott County, and 25 in Barton County.——The Oakland School, Topeka, was closed March 4, on account of scarlet fever.

KENTUCKY.

Smallpox.—There are said to be 12 cases of smallpox at Woodland Mills, near Hickman.——Little Rock Precinct, Bourbon County, reports 6 cases of smallpox.——Smallpox is said to be very prevalent at Hemp Ridge, Shelby County.——Lovelaceville, near Lancaster, reports 11 cases of smallpox.

Personal.—Dr. P. Richard Taylor, Louisville, formerly dean of the Hospital College of Medicine, has returned from a five months' trip around the world.——Dr. Walter F. Boggess, Louisville, has been seriously ill.——Drs. John G. South and Hervey S. Keller, both of Frankfort, have been appointed members of the State Board of Health.——Dr. Henry P. Sights, Paducah, was thrown from his seat in a local freight train at Boaz, and fractured two ribs.——Dr. Robert C. Allen, interne at Speers' Hospital, Dayton, has resigned, and will practice at Sharonvile, Ohio.

Good Work of the State Board.—The state senate has passed the Watson bill, with only one dissenting vote. This bill was prepared by the State Board of Health, under the direction of Dr. J. N. McCormack, Bowling Green. It provides for an increase in the annual appropriation for the state board from $5,000 to $25,000; the establishment of a state laboratory with a competent bacteriologist in charge, and the inauguration of a scientific campaign to eliminate contagious, infectious and preventable diseases. One of the first works to be undertaken will be a sanitary survey of the sources of water supply and their purification.

Society Meetings.—At the annual meeting of the Louisville Academy of Medicine, held March 15, the following officers were elected: President, Dr. Dunning S. Wilson; vice-president, Dr. Ezra O. Witherspoon; secretary, Dr. David C. Morton, and treasurer, Dr. Charles Farmer. This society had as its guest of honor Dr. Willard H. Hutchings of Detroit, Mich., who at the afternoon session delivered an address on the "Opsonic Treatment of Disease." At a recent meeting the society voted to ask for admission as the Medical Section of the Jefferson County Medical Society.——The Paducah Medical and Surgical Society, which was abandoned five years ago, was reorganized March 17, and the following officers were elected: Dr. John G. Brooks, president; Dr. Oliver R. Kidd, vice-president, and Dr. James T. Reddick, secretary.——The State Colored Medical Association will meet in Louisville, May 13 to 14, and will be entertained by the Falls City Medical Society.

MARYLAND.

Gorman Bill Defeated.—After prolonged debate, the state senate on March 19 defeated Senator Gorman's bill to postpone indefinitely the date on which the state is to commence to take care of its indigent insane, and fixed the date as Jan. 15, 1911. At the last legislature an act was passed fixing the date as Jan. 1, 1909.

Bond Issue Urged.—Dr. George J. Preston, president of the state lunacy commission, urges that a bond issue of $600,000 be made by the state to provide for the care of the insane.

There are 1,300 indigent insane in Maryland, none of whom is properly cared for. In the majority of the institutions where they are kept the conditions are said to be horrible, and the state is not acting with common decency in its treatment of these unfortunates. Dr. Preston combats the idea of increasing taxation by showing that such increase for state taxes is counterbalanced by the diminished tax rates for counties and cities which now bear the burden.

Appropriations to Hospitals.—The following appropriations to hospitals and dispensaries, payable one-half annually for a period of two years, have been agreed on by the finance committee of the houses of the legislature: Lying-in Hospital, University of Maryland, Baltimore, $6,000; Nursery and Children's Hospital, Baltimore, $5,000; Hebrew Hospital, Baltimore, $8,000; Hospital for the Women of Maryland, $6,000; Baltimore City Hospital, $20,000; St. Agnes' Hospital, Baltimore, $6,000; Home and Infirmary, Cumberland, $15,000; Maryland General Hospital, Baltimore, $16,000; Faculty of Physic, University of Maryland, $20,000; Hospital for Crippled and Deformed Children, Baltimore, $10,000; Provident Hospital and Dispensary, Baltimore, $3,000; Maryland Lying-in Hospital, Baltimore, $4,000; Peninsula General Hospital, Salisbury, $15,000; United Charities Hospital, Dorchester County, $15,000; St. Joseph's Hospital, Baltimore, $15,000; Franklin Square Hospital, Baltimore, $10,000; Baltimore Eye, Ear, Nose and Throat Charity Hospital, Baltimore, $15,000; Frederick City Hospital, $16,000; Northeast Dispensary, Baltimore, $1,500; Emergency Hospital, Annapolis, $10,000; Southern Dispensary, Baltimore, $1,000; West End Maternity Hospital, Baltimore, $4,000; Washington County Hospital Association, $12,000; Silver Cross Home for Epilepties, Port Deposit, $3,000; Union Protestant Infirmary, Baltimore, $16,000; Woman's Medical College, Baltimore, $2,400; Cecil County Union Hospital, $6,000; South Baltimore Eye, Ear, Nose and Throat Hospital, $2,500, and St. Luke's Hospital, Baltimore, $5,000. In addition to the above Johns Hopkins University receives $50,000, and the regents of the University of Maryland $32,000, also payable one-half annually for two years.

Baltimore.

Personal.—Dr. Louis J. Rosenthal sailed for Bremen March 20.——Dr. Howard A. Kelly was the guest of honor at a reception given by the Newcastle County (Del.) Medical Society March 17, after which he delivered an address on "The Relation of Art to Medicine and Surgery."

A Blow to Eddyists.—The so-called anti-christian science bill passed the senate March 19 by a vote of 21 to 5, having previously passed the house. Under the provisions of this act all eddyists are prohibited from practicing unless they have passed the regular medical examination, or eschew the acceptance of fees.

Arrested for Stealing Medical Books.—Edward B. Ernest, claiming to be a physician and a graduate of Heidelberg University, and to have practiced in Colorado and Nevada, was arrested for stealing medical and law books. Some books were found in his possession, of which he was trying to dispose. The man is about 55 years of age, well dressed and of good appearance.

MICHIGAN.

Communicable Diseases.—Many cases of typhoid fever are reported in St. Joseph and Benton Harbor.——The schools of Cottrellville have been ordered closed, on account of an epidemic of smallpox, and quarantine has been ordered.

Released on Parole.—Dr. Scott F. Hodge, Detroit, convicted in August, 1904, on the charge of malpractice in connection with the death of Anna Lehman by performing a criminal operation, and committed to the Ionia Reformatory a year later for a term of from six to nine years, was paroled and released March 1.

Antituberculosis Society Organized.—The Houghton County Antituberculosis Society was organized in Calumet, March 2. Among the physicians on the list of officers are the following: First vice-president, Dr. Henry M. Joy, Calumet; and members of the executive committee, Drs. Neil S. McDonald and William H. Dodge, Hancock; Dr. Robert B. Harkness, Houghton; Dr. West, South Range; Dr. Albert I. Lawbaugh, Calumet; Dr. Edwin T. Abrams, Dollar Bay; and Dr. Philip D. Bourland, Lake Linden.

January Vital Statistics.—During January, 3,097 deaths were reported to the department of the State Board of Health, equivalent to an annual death rate of 12.4 per 1,000 of population. This number is an increase of 330 over the preceding month, but a decrease of 238 from the corresponding month of 1907. Of the decedents, 540 were infants under one year of age; 173 were children aged from 1 to 5 years inclusive, and 1,065 were individuals 65 years and over. Among the important causes of deaths were: Pneumonia, 306; tuberculosis, 210; cancer, 156; violence, 149; influenza, 84; diphtheria, 44; scarlet fever, 33; typhoid fever and meningitis, each 32; infantile diarrhea, 30; whooping cough, 17, and measles, 11. One death from smallpox was reported during the month, and tetanus claimed 3 victims.

MINNESOTA.

Fraud Order Issued.—A fraud order is said to have been issued by the Postoffice Department against Ambraski Bros. and the National Distributing Agency for fraudulent use of the mails in disposing of certain medicines, for which it is charged that false claims were made.

Personal.—Dr. Ignatius Donnelly, Mankato, formerly of Butte, Mont., is said to be seriously ill with disease of the stomach.——George H. Christian, Minneapolis, has been reelected president of the Minnesota Branch of the National Society for the Relief and Prevention of Tuberculosis; Dr. Charles L. Greene, St. Paul, vice-president, and Dr. Henry M. Bracken, St. Paul, secretary-treasurer.——Dr. A. E. Ofstad, Minneapolis, was painfully cut and bruised in a collision between his automobile and a street car, February 27.——Dr. George W. Davis, Duluth, who recently suffered a stroke of paralysis, is reported to be improving.

NEW MEXICO.

Society Organized.—The physicians of Eddy County met in Artesia February 14 and organized the Eddy County Medical Society with Dr. F. E. Dunnaway as president, and Dr. J. Dale Graham, secretary, both of Artesia.

Hospital News.—Albuquerque is reported to be gravely in need of a properly equipped detention hospital for contagious diseases.——Albuquerque has been selected as a site for a sanatorium for tuberculosis, to be established by the Presbyterian Church of the United States at a cost, it is said, of $1,000,000.

City Physician Criticised.—The city physician of Albuquerque has been severely scored by the local surgeons of the Santa Fé System, who allege that the city physician has exceeded his authority in conducting fumigation in one of the recent smallpox cases in the city.——Another physician of Albuquerque alleges that the city physician had quarantined as smallpox a patient in whom the disease was not present.

Personal.—Dr. James B. Cutter, surgeon of the Santa Fé System, Albuquerque, has gone to Los Angeles to take charge of the general hospital of the system at that place. At a recent meeting of the Bernalillo County Medical Society a cut-glass bowl was presented to Dr. Cutter as a token of the esteem in which he is held by the members.——Dr. William A. Wilson, Willard, has been seriously ill with septicemia, but is now reported to be convalescent.

NEW YORK.

Hospital Wing Dedicated.—The new wing to St. John's Hospital, Long Island City, was dedicated recently. This structure cost $250,000, is 125 feet long by 60 feet wide and six stories in height, and has accommodations for 200 patients.

Personal.—Dr. Walter W. Hotchkiss, Jamestown, was severely burned by asphalt at his home, March 10.——Dr. M. P. Conway has been reelected president of the water board of Auburn.——Dr. George W. Goler has been reappointed health officer of Rochester, and Dr. Joseph Roby, deputy health officer.

Medical Club Election.—At the annual meeting of the Utica Medical Club, March 12, the following officers were elected: President, Dr. William S. Nelson; vice-president, Dr. John Groman; secretary-treasurer, Dr. Charles H. Baldwin, and trustees, Drs. Edwin Van D. Gazzam, William J. Schuyler and Morris J. Davies.

Communicable Diseases.—The smallpox situation in the town of Waterloo is reported to be improving and it is now believed that there will be no further outbreak of the disease. All but two of the closed district schools have been reopened.——There are now about 60 cases of measles reported in the vicinity of McGraw.——Measles is reported to be increasing in Binghamton.

The Optometry Bill.—The Medical Society of the State of New York has sent postal cards to all of its members in regard to the optometry bill which will soon be voted on. This bill authorizes opticians to fit glasses and denies them the right to use atropin. Oculists declare that this will result in great injury to children's eyes. The bill authorizes a board of examiners whose only qualifications shall be a knowledge of optics.

Oculists think this knowledge is not sufficient. Every legislator who votes for this bill, it is said, either votes in ignorance of the consequences or violates his oath of office. The members of the society are urged to write their respective assemblymen insisting that this bill shall be defeated.

New York City.

The Death of Roosa.—At a meeting of the board of directors and the faculty of New York Postgraduate Medical School and Hospital March 13, resolutions were unanimously adopted deploring the death of Dr. Daniel B. St. John Roosa, president of the board and institution.

Model Milk Depot.—The city has undertaken the erection of a milk depot for the distribution of pasteurized milk by the glass and in nursing bottles. This depot will be located in Tompkins square, in the midst of a densely populated area, and will be operated by Mr. Strauss. There will be a consultation room and full facilities for caring for babies.

Gibbs Prize Awarded.—The committee on the Gibbs prize essay, of which Dr. A. Alexander Smith is chairman, has announced to the trustees of the New York Academy of Medicine and the profession at large that the paper on "The Etiology, Pathology and Therapeutics of Diseases of the Kidneys," by Dr. Norman E. Ditman, has been awarded the prize.

Smallpox on Ocean Liner.—The steamer *Graf Waldersee* from Plymouth, which arrived in New York March 14, reported a case of smallpox on board. The boat was placed in quarantine, while the patient and the 197 passengers who occupied the same compartment and had been exposed to the disease, were transferred to Hoffman's Island for observation.

Many Cases of Contagious Diseases.—It is reported that all four of the city hospitals for contagious diseases are full, namely, Willard Parker, North Brother Island, and the Minturn and Kingston Avenue, and that there is a demand for accommodation, which can not be supplied. This is said to be chiefly on account of the unusual prevalence of scarlet fever and measles.

The Orthopedic Hospital.—During the past year the expenses of this institution have exceeded the receipts and the management is pledged to keep the institution free from debt. During the year just ended 18,000 visits were made to the dispensary; and in addition the hospital is overcrowded and new buildings are needed. Several bequests made during the year have been made the nucleus of an endowment fund.

Contagious Diseases.—There were reported to the sanitary bureau for the week ended March 14, 1,643 cases of measles, with 27 deaths; 942 cases of scarlet fever, with 44 deaths; 434 cases of pulmonary tuberculosis, with 191 deaths; 322 cases of diphtheria, with 55 deaths; 37 cases of typhoid fever, with 9 deaths; 20 cases of whooping cough, with 2 deaths; 12 cases of cerebrospinal meningitis, with 12 deaths; 187 cases of varicella, and one case of smallpox, making a total of 3,598 cases, with 340 deaths.

Corporation Can Not Practice Medicine.—The Appellate Division is said to have affirmed the conviction of the John H. Woodbury Dermatological Institute, convicted and fined $100 in the Court of Special Sessions on a charge of unlawfully practicing medicine without legal authority. The counsel drew attention to the statutory construction of the law which provides that the term person includes a corporation and a joint stock company. This was the construction applied to this case in which the defendants claimed that there was no law against a corporation practicing medicine without a license.

NORTH CAROLINA.

January Deaths.—The mortuary reports for January show 320 deaths, of which 70 were due to pneumonia, 40 to tuberculosis, 36 to heart diseases, and 23 to brain diseases.

Prescriptions for Liquor.—During 1907 it is charged that the drug stores of Charlotte filled 39,645 prescriptions for liquor. Of these 35,011 were for quarts of whisky and 419 were for dozens of bottled beer. It is said that of the prescriptions, 3,997 were filled by one druggist and 3,691 by another.

Journal Merger.—The *North Carolina Medical Journal* and *Charlotte Medical Journal* have been merged in one publication, which will be known as the *Charlotte Medical Journal*. The company, which has been incorporated with an authorized capital of $25,000, has Dr. Walter O. Nesbit for president, and Dr. Edward C. Register for editor of the publication.

Personal.—Dr. S. Westray Battle, Asheville, has been elected resident physician to the Battery Park Hotel.——Dr. Robert B. Slocum, superintendent of the James Walker Memorial Hospital, Wilmington, for several years, has resigned, and will resume private practice.——Dr. Newton Craig has returned from New York, and will practice in Charlotte.——Dr. John C. Montgomery has been appointed a member of the medical staff of St. Peter's Hospital, Charlotte.——Dr. Louis W. Elias, Asheville, has been appointed physician of Biltmore Hospital, vice Dr. Lawrence E. Holmes, deceased.——Dr. Frank H. Russell, Wilmington, examining surgeon of the state board of medical examiners for the last five years, is about to remove to southern California on account of ill-health.——Dr. Thomas Stringfield, Waynesville, inspector general of the North Carolina National Guard, is making his annual tour of inspection.——Dr. C. A. Shore assumed on March 1 the duties of chief bacteriologist of the laboratory of the State Board of Health.

NORTH DAKOTA.

Communicable Diseases.—Scarlet fever, in mild form, is reported to be epidemic in Edmore.——The public schools of Starkweather have been closed on account of an epidemic of measles.

Hospital Notes.—St. Luke's Hospital, Fargo, was formally dedicated February 18. The institution has a capacity for 50 patients, and has cost with the furnishings about $51,000.——Plans have been submitted for the proposed insane hospital at Jamestown, to cost about $75,000.

December Deaths.—The Bulletin of the North Dakota State Board of Health reports 133 deaths during December, and contagious diseases as follows: Smallpox, 219 cases, with one death; diphtheria, 75 cases, with 8 deaths; scarlet fever, 45 cases, with one death; measles, 24 cases, with no deaths; tuberculosis, 16 cases and 15 deaths, and typhoid fever, 16 cases, with 3 deaths.

OHIO.

Personal.—Drs. Frank W. Gavin and Arthur Hill, Canton, have been elected delegates from the Stark County Medical Society to the State Medical Society.——Dr. John P. Gardiner has been made pathologist at the Toledo Hospital, vice Dr. Arthur T. Barnum, resigned.

Communicable Diseases.—The health department of Cincinnati announces a spread of cerebrospinal meningitis.——During the second week in March, 128 cases of measles were reported in Cleveland.——Smallpox, at first wrongly diagnosed as a mild skin eruption, is prevalent at Tippecanoe.

Hospital Opened.—The Emergency Hospital, Mansfield, was opened for general inspection, March 18. The institution, which occupies the Wagner Home, has been completely remodeled. A hot-water system has been installed, an operating room and a sterilizing outfit procured, thus giving the city a first-class hospital with accommodation for about 20 patients.

Medical Society Goes on Record.—At the regular meeting of the Miami County Medical Society, held in Piqua March 5, resolutions were adopted favoring the passage of the bill regulating the itinerant vending of medicines, nostrums, appliances, etc., and opposing the bill regulating the practice of optometry on the ground that it is dangerous to the welfare of the people of Ohio, that the treatment of the eye by means of lenses is a branch of regular medicine, and that a license to practice optometry after six months' study is dangerous to the patient and most unfair and unjust to regular practitioners of medicine.

OKLAHOMA.

Paroled.—Dr. John D. Irwin, Kaw City, who is serving a sentence of ten years on the charge of killing Alfred Mann in 1905, has been paroled.

Medical Bill Passed.—The senate committee of the whole on March 17 passed the bill introduced by Senator Johnson, creating a State Board of Health of three members, to serve three years, and to be appointed by the governor.

Personal.—Dr. Everett G. Newell, Yale, has been appointed superintendent of Oklahoma Asylum for the Insane, Fort Supply.——The malpractice suit against Dr. George E. Martin, Newkirk, in which $10,500 damages was asked, has been decided in favor of Dr. Martin.

Epidemic Diseases.—Influenza and smallpox are reported to be epidemic in and around Muskogee.——Pneumonia is prevalent around Hugo, where 6 deaths have occurred within three days.——Smallpox has made its appearance among the students of the University of Oklahoma at Norman.——On account of a case of supposed smallpox at Dougherty the schools have been closed for a week.——The schools of Arcadia, Harra and Newwalla have been closed on account of smallpox.——Malignant smallpox is reported at Coalgate.

Society Meetings.—Pursuant to call, the physicians of Pontotoc County met at Ada, February 7, and organized the Pontotoc County Medical Society, along the lines recommended by the American Medical Association. This society is the legitimate successor to the Sixteenth Recording District Medical Society. The following officers were elected: President, Dr. Charles S. Wilkerson, Roff; vice-president, Dr. Sidney M. Richey, Francis; secretary-treasurer, Dr. Charles W. McMillan, Ada; and censors, Drs. John A. Jeffries, Roff; C. A. Steward, Allen, and John R. Runyan, Ada.——The physicians of Ottawa County met at Miami, January 29, and organized the Ottawa County Medical Society with the following officers: President, Dr. Wm. L. McWilliams, Miami; vice-president, Dr. Joseph Donohoo, Afton; and secretary, Dr. Robert H. Harper, Afton.——On March 5 the practitioners of Texas County met at Guymon and organized the Texas County Medical Society on standard lines. The following officers were elected: Dr. James M. McMillin, Tyrone, president; Dr. William H. Langston, Guymon, vice-president, and Dr. Rutherford B. Hayes, Guymon, secretary-treasurer.——The physicians of the old Roger Mills County Medical Society met at Elk City, March 4, and organized the Beckham County Medical Society with the following officers: President, Dr. James McComas, and secretary, Dr. Harry O. Jones, both of Elk City.——The Lincoln County Medical Society has been organized at Agra by Drs. John W. Dunn, Fallis and others.

PENNSYLVANIA.

Hospital Notes.—The new City Hospital, Scranton, was formally opened with a public reception, February 19.——The Montefiore Hospital, Pittsburg, will be formally dedicated May 1. The institution will accommodate about 60 patients, and will have cost, when completed, $110,000.——The controversy between the trustees of the State Hospital, Mercer, and Dr. J. Clayton Weidman, physician in charge, was ended March 12, when the doctor, accompanied by the matron and 11 nurses and domestic employés, vacated the premises. Dr. Paul T. Hope, the new surgeon, has assumed charge of the institution.

Hospital Examinations.—The following examinations for positions of resident physicians have been announced: For the Mercy Hospital, Wilkesbarre, an examination for three resident physicians will be held in Wilkesbarre, April 18.——An examination will be held at the South Side Hospital, Pittsburg, April 18, to choose six internes—four to serve one year from July 1, and two from October 1.——An examination for two resident physicians for St. Luke's Hospital, South Bethlehem, will be held in the hospital building April 18.——An examination to fill three vacancies on the resident staff of the City Hospital, Wilkesbarre, will be held in the hospital April 10.

Officers Elected.—Warren County Medical Society has elected the following officers: President, Dr. Charles W. Schmehl, Warren; vice-presidents, Drs. George M. B. Bradshaw, Sugar Grove, and Hiram B. Russell, Sheffield; secretary, Dr. Leroy E. Chapman, Warren, and treasurer, Dr. Morris S. Guth, Warren.——At the annual meeting of the Carbondale Medical Society, March 17, Dr. John E. O'Brien was present by invitation and read a paper on "The Underlying Causes of Skin Diseases." The following officers were elected: President, Dr. John A. Kelly; vice-president, Dr. James J. Thompson; secretary, Dr. J. W. Grant; treasurer, Dr. Welles J. Lowry; censor, Dr. U. Grant Anderson, and librarian, Dr. Frank J. Wagner.

Personal.—Dr. George W. Berntheisel, Columbia, who recently underwent operation for disease of the eye in Philadelphia, has recovered, and will resume practice.——Dr. John Lubrecht, Hazelton, has been appointed resident physician at the Allentown Hospital.——Dr. Milton A. Hengst, Birdsboro, who was recently stricken with cerebral hemorrhage, is still in a serious condition.——Dr. Edgar M. Green has been elected president of the Easton Medical Society for the Study and Prevention of Tuberculosis.——Dr. Jonathan C. Biddle, for many years physician at the Miners' Hospital, Fountain Springs, has resigned, and will locate in Scranton.——Dr. John C. Sheridan is said to be seriously ill with uremia at his home in Johnstown.——Dr. Daniel Robinhold has been re-elected president of the Forty Foot board of health for a term of five years.——Dr. Charles J. Ellis, Pittsburg, has been appointed jail physician of Allegheny County, vice Dr. Archibald V. Chessrown, deceased.

Communicable Diseases.—An epidemic of scarlet fever is reported in Eldorado and vicinity.——An epidemic of measles has caused the closure of the schools of Tullytown.——Chickenpox, measles and mumps are said to be prevalent at Bethany Orphanage, Womelsdorf.——On account of the prevalence of measles the Saltsburg public schools have been closed.——Whooping cough is reported to be epidemic at Pennville.——The township school of Josephine has been closed on account of an epidemic of diphtheria.——On account of diphtheria the Conemaugh health board has ordered all schools, churches, theaters and other places of public gathering to be closed until further notice.——Diphtheria is reported to be epidemic at Alburtis.——The village of Sayre is alarmed over the presence of smallpox.——One room in a Johnstown school was closed on account of scarlet fever.——The public schools of Franklin, which had been closed for ten days on account of measles, have been reopened.——Millersburg reports 11 cases of smallpox.

Census of State Society.—The report of the Medical Society of the State of Pennsylvania, which was organized in 1848 and incorporated Dec. 20, 1890, shows that it is composed of 63 county societies with a total membership of 4,926, divided in counties as follows: Adams, 18; Allegheny, 623; Armstrong, 38; Beaver, 49; Bedford, 27; Berks, 97; Blair, 77; Bradford, 42; Bucks, 70; Butler, 46; Cambria, 74; Carbon, 17; Center, 35; Chester, 59; Clarion, 30; Clearfield, 48; Clinton, 16; Columbia, 33; Crawford, 33; Cumberland, 44; Dauphin, 101; Delaware, 66; Elk, 28; Erie, 64; Fayette, 84; Franklin, 55; Green, 25; Huntingdon, 31; Indiana, 45; Jefferson, 59; Juniata, 11; Lackawanna, 144; Lancaster, 137; Lawrence, 45; Lebanon, 21; Lehigh, 81; Luzerne, 129; Lycoming, 85; McKean, 42; Mercer, 59; Mifflin, 31; Monroe, 27; Montgomery, 86; Montour, 20; Northampton, 88; Northumberland, 25; Perry, 20; Philadelphia, 1,188; Potter, 21; Schuylkill, 73; Snyder, 21; Somerset, 27; Sullivan, 10; Susquehanna, 34; Tioga, 31; Union, 17; Venango, 48; Warren, 41; Washington, 113; Wayne, 24; Westmoreland, 104; Wyoming, 12; York, 77.

Philadelphia.

Interne Examinations.—The annual examination for resident physicians to the Jewish Hospital, Philadelphia, will be held at the hospital April 2.——The Methodist Hospital examination for internes will be conducted at the hospital April 6.

Convicted of Malpractice.—Elizabeth Salvo is said to have pleaded guilty to the charge of criminal malpractice February 11, and to have been sentenced to be imprisoned for three years in the Eastern Penitentiary and to pay a fine of $500.

Physicians Organize.—The Postgraduate Academy of Northeastern Philadelphia has recently been organized in Frankford with the following officers: President, Dr. Elmer E. Keiser; vice-president, Dr. Richard C. Allen; secretary, Dr. Albert C. Buckley; and treasurer, Dr. George C. Hanna.

Cleared of Serious Charge.—Dr. Charles H. Johnson, charged with having performed a criminal operation which resulted in the death of Miss Helen Thorpe, was released March 19, the jury finding that Miss Thorpe came to her death from a criminal operation performed by a person or persons unknown.

Bequests.—In the will of the late William B. Scott there is a bequest of $25,000 to St. Christopher's Hospital. Should his two sons die without issue, the remainder of the estate, placed in a trust fund, is to be divided between the Children's Seaside Home, Atlantic City, $25,000; the Bryn Mawr Hospital, $25,000 and the residue to St. Christopher's Hospital.——The will of the late Anna M. Knight makes bequests of $5,000 to each of the following institutions: The Philadelphia Orthopedic Hospital, the Philadelphia Home for Incurables, the Industrial Home for Blind Women and the Pennsylvania Society to Protect Children from Cruelty.

Personal.—Dr. Charles J. Hatfield, president of the Pennsylvania Society for the Prevention of Tuberculosis, was stricken with appendicitis March 12 and was promptly operated on, and is reported to be doing well.——Dr. B. Franklin Royer severed his connection with the Municipal Hospital March 19 and has resumed practice at 35 West Nineteenth Street.——Dr. George P. Weaver, who has been ill at his home, suffering with blood poisoning, had his right leg amputated below the knee March 20.——Dr. James H. McKee, clinical professor of pediatrics in the Woman's Medical College of Pennsylvania, has resigned, to take effect at the close of the present session.

Health Report.—The total number of deaths reported for the week ended March 21 aggregated 531. This is an increase of 4 over the preceding week and an increase of 84 over the corresponding period of last year The principal causes of death were: Typhoid fever, 15; measles, 5; scarlet fever, 6; pertussis, 5; diphtheria, 11; consumption, 65; cancer, 25; apoplexy, 16; heart disease, 37; arteritis, 10; acute respiratory disease, 91; enteritis, 12; hepatic cirrhosis, 7; appendicitis, 3; Bright's disease, 40; premature birth, 11; congenital debility,

11; suicide, 2; accidents, 17, and marasmus, 13. There were 288 cases of contagious disease reported, with 34 deaths, as compared with 255 cases and 28 deaths reported in the preceding seven days.

Baby Traffic Investigation.—The Women's Directory, an organization which supplies legal advice and aid to applicants, has determined to fight a form of traffic in infant life that has apparently succeeded the baby farm. There are scattered in various sections of this city women who advertise under the general caption "Babies Adopted." These persons, for a consideration, usually about $20, assume charge of undesired babies and theoretically find homes for them. As a rule, they receive infants in the first few weeks of their lives from girls and women, who are eager to avoid notoriety. No questions are asked and, in most instances, the subsequent fate of the child is unknown. The directory plans to open a general campaign to bare the practices of the women engaged in this work.

Hospital News.—A clinic for mental diseases was instituted in the Orthopedic Hospital and Infirmary for Nervous Diseases, February 20. The new clinic is in charge of Dr. Charles W. Burr.——The new building of the Garretson Hospital, in Hamilton Street near Eighteenth, was dedicated March 2.——The new Frankford Hospital, at Franklin Avenue and Wakefield Street, was formally dedicated February 25. Drs. B. Frank Walters and Samuel Bolton delivered addresses on behalf of the hospital staff.——The report of the Mount Sinai Hospital for February shows that 63 patients were admitted and that 1,036 new patients were treated in the dispensaries and 239 patients were cared for in the emergency ward. The total number of visits made to the out-patient department reached 3,921.

Report of Hospital.—At the annual meeting of the Free Hospital for Poor Consumptives, held March 10, the following officers and managers were elected: Dr. Lawrence F. Flick, president; Lewis Gerstley, vice-president; Charles W. Welsh, secretary; Edward A. Miller, treasurer; James M. Wilcox, Talcott Williams, Dr. Charles J. Hatfield, Dr. D. J. McCarthy, Dr. Joseph Walsh, Dr. William B. Stanton, R. George Buchanan, John F. Craig, Dr. Richard H. Harte and Joseph M. Engel. The report of the secretary showed that there have been 805 patients at White Haven during the year, and but 6 deaths. There have been 200,270 quarts of milk used at the resort during the year and 353,928 eggs, the total cost of milk and eggs being $17,016.64. The cost of maintenance per patient per week has averaged $7.22. The report shows that only 235 patients have made no improvement.

RHODE ISLAND.

Oppose Optometry.—The Rhode Island Medical Society and a number of subsidiary societies have adopted resolutions opposing the act creating a state board of optometry.

Society Meeting.—At the annual meeting of the Westerly Medical Society Dr. Frank C. Pagen was elected president; Dr. William A. Hilliard, secretary; Dr. J. Howard Morgan, treasurer; and Drs. Edwin R. Lewis, Samuel C. Webster and J. Howard Morgan, censors.

Fined for Illegal Practice.—Louis Hirsch, Providence, was arraigned before Judge C. M. Lee March 13, on the charge of practicing medicine and surgery without a license, is said to have pleaded guilty to the charge, to have been fined $50 and costs, to have paid the fine and to have been released.

Personal.—Dr. William C. Monroe has been chosen as secretary of the medical board of the Woonsocket Hospital Corporation.——Dr. Charles Barnard has been endorsed for re-election as medical examiner for North Providence and Smithfield, and Dr. Jay Perkins as medical examiner for Providence.

SOUTH CAROLINA.

State Society Meeting.—The South Carolina Medical Association will hold its annual convention at Anderson, April 14 to 17 inclusive, under the presidency of Dr. Le Grande Guerry, Columbia.

Personal.—Dr. Francis L. Parker, Charleston, has been placed in charge of the analysis of foods and drugs for the State Board of Health.——Dr. William H. Woods, Turbeville, has been chosen delegate to the state association from the Clarendon County Medical Society.——Dr. J. Somers Buist, Charleston, who suffered a cerebral hemorrhage January 8, is reported to be improving.

Society Meetings.—At the annual meeting of the Fourth District Medical Society, held in Anderson, Dr. Hugh R. Black, Spartanburg, was re-elected president, and Dr. Edgar A. Hines, Seneca, secretary. Seneca was selected as the next place of meeting.——At the annual meeting of the Aiken County Medical Society the following officers were elected: Dr. Holsenbach, Graniteville, president; Dr. Charles A. Teague, Graniteville, vice-president; Dr. Harry H. Wyman, Aiken, secretary-treasurer; and Drs. Theodore A. Quattlebaum, W. Albert Whitelock, Kitching's Mills, and H. J. Ray, censors.——At the annual meeting of the Lexington County Medical Society, held in Lexington, Dr. Frank R. Geiger, New Brookland, was elected president; Dr. R. H. Timmerman, Batesburg, vice-president, and Dr. James J. Wingard, Lexington, secretary-treasurer.——At the annual meeting of the Florence County Medical Society, held in Florence, Dr. Albert G. Eaddy, Timmonsville, was elected president; Dr. Edward M. Allen, Florence, vice-president, and Dr. W. E. Mills, Timmonsville, secretary-treasurer.

WISCONSIN.

Election.—At a meeting of the Fox River Valley Medical Society, held in Appleton, March 3, Dr. Henry W. Abraham, Appleton, was elected president; Dr. Joseph H. Doyle, Little Chute, vice-president; Dr. Manly J. Sandborn, Appleton, secretary-treasurer; and Dr. James S. Reeve, Appleton, censor.

Personal.—Dr. Leonard E. Spencer, Wausau, has been re-elected a member of the State Board of Health.——Dr. Paul A. Fox, Beloit, sailed from New York for the Mediterranean, March 7.——Dr. Eugene Chaney, for ten years a member of the staff of Mendota State Hospital, has resigned, and will become first assistant at the Dewey Sanitarium, Wauwatosa.

Hospital News.—Mrs. E. P. Allis and Charles Allis, Milwaukee, have sent a check for $2,000 to the Blue Mound Sanitarium for Tuberculosis, for the construction of a new pavilion for men, to be called the Allis pavilion and to accommodate eight or ten patients.——The new hospital at Columbus has been completed and is ready to receive patients. The building is of brick and two stories and a basement in height.

Defense Against Malpractice Suits.—Dr. Gilbert E. Seaman, Milwaukee, has been elected chairman of a committee of the council of the Wisconsin State Medical Society, created for the protection of members of the organization against malpractice suits. Dr. Arthur J. Patek, Milwaukee, has been elected secretary of the committee. The purpose of the committee is to obtain the necessary funds, and to employ the best legal talent for the defense of any member of the society needing such services.

Found Guilty of Malpractice.—Dr. Edward C. Schnittker, Milwaukee, charged with having performed a criminal operation, which caused the death of Miss Anna Severson, is said to have been found guilty of manslaughter in the second degree, February 7, and ten days later was sentenced to four years' imprisonment in the state penitentiary. After pronouncing sentence, the judge also revoked Dr. Schnittker's license to practice medicine. A plea for a stay of execution was denied, and the sentence began at noon February 17.

Illegal Practitioner Sentenced.—John Till, a so-called "healer" of Somerset, charged with practicing medicine without a license, is said to have been found guilty, at Glenwood, February 26, and sentenced to pay a fine of $100 and costs, and to be imprisoned three months in the county jail. An appeal was taken by the defendant's attorney, and the defendant was released on a $500 bond. It is said that Till immediately resumed practice, and that nearly 200 patients came to him at Somerset for treatment the day after his release.

TEXAS.

Society Meetings.—At the annual meeting of the Guadaloupe County Medical Society, held in Seguin, February 18, Dr. Samuel S. Beakley was elected president; Dr. Asa M. Stamps, vice-president; Dr. James Greenwood, secretary; Dr. R. F. Knolle, delegate to the state society, and Dr. Oscar G. Pearson, censor, all of Seguin.——At the annual meeting of the Wharton-Jackson Counties Medical Society, held in Wharton, February 21, the following officers were elected: President, Dr. Walter B. Huey, El Campo; vice-president, Dr. Green L. Davidson, Wharton; secretary-treasurer, Dr. A. L. Lincecum, Louise; censors, Drs. William A. McCamley, Wharton, and William H. Lancaster, Ganado; and delegate to the state medical association, Dr. Judson M. Andrews, Wharton.

GENERAL.

No Plague in Hawaii.—During the week ended February 15, 184 rats were examined bacteriologically at the plague laboratory of the P. H. and M.-H. Service, Honolulu, and during the week ended February 22, 134 rats were examined. No plague

infection was found.——A steamer which arrived in Honolulu from Hongkong February 28, was found to have a case of varioloid aboard. The patient and 100 steerage passengers were placed in quarantine, the steerage and other quarters were disinfected, and the usual quarantine rules were carried out.

Cuban Yellow Fever Report.—Acting Assistant Surgeon Marsillan, P. H. and M.-H. Service, reported from Cienfuegos, March 2 and 9, that on February 28 all cases of yellow fever at Santa Clara had been removed save one, an American soldier, who had died. No new cases have been reported in the city since January 24.——Acting Assistant Surgeon Thomas, Havana, reports that on March 9 no new yellow fever cases had been reported. Similar reports were made under date of March 3 and 9 from Matanzas.——Acting Assistant Surgeon Wilson reports from Santiago, March 3 and 4, that the case of yellow fever reported in that city February 20 was declared recovered.

Philippine Islands Report.—During the week ended January 18 Chief Quarantine Officer Heiser of Manila reports that there were 73 cases of cholera, with 59 deaths, an increase of 28 cases, with 24 deaths, over the numbers reported for the preceding week.——In Mariquina Valley 45 cases and 23 deaths were reported. For the preceding week only 3 cases and 2 deaths occurred.——During the week ended January 25, there were 45 cases of cholera and 37 deaths at Manila. During the week ended February 1, 13 cases of cholera occurred, with 10 deaths.——An increase was reported in the cases in the province of Zambales, where 158 cases and 108 deaths were said to have occurred.——Two steamers have recently arrived from Japan with smallpox patients on board. The passengers were thoroughly disinfected; all persons on board were bathed and their quarters disinfected in the usual manner.

Hodgkins Fund Prize.—Secretary Charles D. Walcott of the Smithsonian Institution announces that in connection with the approaching International Congress on Tuberculosis in Washington, Sept. 21 to Oct. 12, 1908, a prize of $1,500 from the Hodgkins Fund is offered for the best treatise on "The Relation of Atmospheric Air to Tuberculosis." Essays having relation to the cause, spread, prevention, or cure of tuberculosis are included within the general terms of the subject. Any previously unpublished essay read before the International Congress on Tuberculosis, or sent to the Smithsonian Institution or to the secretary general of the congress before its close, namely, Oct. 12, 1908, will be considered in the competition. Address either the Smithsonian Institution, Washington, D. C., or Dr. John S. Fulton, secretary general of the International Congress on Tuberculosis, 714 Colorado Building, Washington, D. C.

Coming Meetings.—The National Association of United States Pension Examining Surgeons will hold its seventh annual meeting at the Palmer House, Chicago, June 1, at 10 a. m., under the presidency of Dr. G. Lane Taneyhill of Baltimore. The new medical referee, Dr. Charles F. Whitney, Washington, and the pension commissioner, Hon. Vespasian Warner, have been invited to address the association.——The Association of Surgeons of the Confederate Army and Navy will hold its annual reunion in June, at Birmingham, Ala., and their entertainment is made the special care of the Jefferson County Medical Society.——The headquarters of the American Medico-Psychological Association, the meeting of which has already been announced at Cincinnati, May 12 to 15, will be at the Hotel Sinton. Dr. Charles P. Bancroft, Concord, N. H., is president of the association, and the preliminary program shows a number of interesting papers.

Health of the Canal Zone.—In the report of the department of sanitation of the Isthmian Canal Commission for January, Dr. W. C. Gorgas, chief sanitary officer, notes a considerable decrease in the death rate among employés, the December death rate being 18.11 per 1,000 per annum and the January death rate 12.72. The decrease in the mortality is most marked among negroes. The death rate of Panama for January, 1908, was 37.68 per 1,000, which compares favorably with 41.93 per 1,000, the rate for 1907. In Colon a still greater decrease was noted, as in January the death rate was 29.85 per 1,000 as compared with 46.78 per 1,000 in January, 1907. For the entire Canal Zone the death rate for January was 19.43 per 1,000, while in January, 1907, it was 27.41 per 1,000. The decrease in the amount of malaria is marked. In January, 1907, there were admitted to the hospitals 1,813 cases of malaria, while in January, 1908, 642 cases were admitted; that is, with an increased force of 1,200 men, the cases of malaria were decreased about two-thirds. No case of yellow fever has occurred in the Canal Zone since May, 1906, and while the plague is prevalent north and south on the Pacific Coast, no case has occurred in the zone since 1905.

Food Adulteration Congress.—The first International Congress for the Repression of the Adulteration of Alimentary and Pharmaceutical Products will be held in Geneva, Switzerland, in September, 1908. The plan for the first meeting is an exhibition of unadulterated food products, and the subject for consideration at this time will be "The Defining of Unadulterated Food." In every case definition will be the basis of the decision, thus establishing a *codex alimentarius*. It is desired by the committee of organization that manufacturers, chemists and lawyers who are interested in this question should unite in forming these definitions. Dr. Harvey W. Wiley, Washington, D. C., has been asked to organize an American committee and to associate with him those in the various states who have charge of the application of the drug and food laws. The dues are $20 for donating members, $4 for nominal members and $2.50 for associate members. It is particularly desired that as many as are able submit definitions for food and drug products, as it is profitable to accumulate as much material as possible to establish a broad basis for decisions. Papers on food and drug products are also solicited and may be sent directly to the proper sections or forwarded to Dr. Wiley for transmission. It is hoped that a large membership in the congress may be secured from the United States. The official languages of the congress are English, French, German and Italian, and the office of the secretary-general is at 42 Rue du Rhône, Geneva.

CANADA.

Drug Clerk Fined.—Frank Richardson, Toronto, a drug clerk, is said recently to have been fined $25 and costs, or imprisonment of one month in jail for violation of the medical act. He is said to have prescribed for a detective, who complained of neuralgia and insomnia.

Communicable Diseases.—The schools of Port Dalhousie were closed February 25 on account of the prevalence of scarlet fever.——Scarlet fever is said to be very prevalent at St. Catherines.——Smallpox is reported to be epidemic in several of the southern counties of New Brunswick.——During 1907, 1,860 cases of smallpox were reported in Nova Scotia, with 5 deaths.

Personal.—At the annual election of the British Columbia Medical Council, February 15, Drs. Simon J. Tunstall, Vancouver, and William H. Sutherland, Revelstoke, were elected to replace Dr. John C. Davie, Victoria, and Dr. William J. McGuigan, Vancouver.——Dr. Hugh L. Dickey, medical examiner at the port of Halifax, N. S., has, it is said, been dismissed on account of alleged irregularities in passing immigrants, and Dr. Murdoch Chisholm has been appointed in his stead.——Dr. John H. Cormack has been appointed secretary of the St. Thomas (Ont.) Medical Association, vice Dr. Archibald Leitch, retired.——Drs. John S. Matheson, Logan M. Moore, John L. McDiarmid, John A. McDonald, E. Charles Beer, George E. McKenzie, McGilliway S. Fraser, James J. Anderson and Victor E. Latimer have been re-elected the medical staff of the Brandon (Man.) General Hospital.——Dr. John W. Peaker, Toronto, is said to be seriously ill with rheumatism.——Dr. David H. Arnott, London, was seriously injured in a runaway accident March 12.——Dr. William W. Ogden, Toronto, has been elected chairman of the board of education.

Society Meetings.—The Niagara District Medical Association at its annual meeting at Niagara Falls, Ont., March 15, elected Dr. Fred S. Greenwood, St. Catherines, president; Drs. James H. McGarry, Niagara Falls, and Jacob H. Howell, Welland, vice-presidents; and Dr. Norman Walker, Niagara Falls, secretary-treasurer.——At the second annual meeting of the Manitoba Medical College Alumni Association, held in Winnipeg recently, Dr. Gordon Bell, Winnipeg, was elected president; Dr. James W. Armstrong, Gladstone, vice-president, and Dr. John E. Coulter, Winnipeg, secretary-treasurer (re-elected).——At the annual meeting of the St. Thomas (Ont.) Medical Association Dr. Frank Lawrence was elected president; Dr. Frederick Guest, vice-president; Dr. Archibald Leitch, secretary; Dr. Archibald C. Campbell, treasurer, and Dr. James D. Curtis, librarian.——At a recent meeting of the physicians of Wellington County the Wellington County Medical Association was organized, with the following officers: President, Dr. Alexander Stewart, Palmerston; vice-president, Dr. William O. Stewart, Guelph; secretary, Dr. E. Flath, Drayton, and treasurer, Dr. James Lindsay, Guelph.——At a recent meeting of the medical men of Waterloo County, held in Galt, the Waterloo County Medical Association was organized, with the following

officers: President, Dr. James S. Wardlaw, Galt; vice-president, Dr. Robert J. Lockhart, Hespeler; secretary, Dr. William S. Dakin, Galt, and treasurer, Dr. Woolner, Ayr.——The eighth annual meeting of the Canadian Association for the Prevention of Tuberculosis was held in Ottawa, March 17 and 18. It was shown that the association had been instrumental during the past year in projecting sanatoria as follows: One in British Columbia; one to be erected this spring in Manitoba; one for Saskatchewan; one for Alberta; in London; and Lanark and Renfrew counties, Ontario, have decided to build one each. Dr. P. H. Bryce of Ottawa delivered an address on "The Tuberculous Immigrant," and Dr. J. E. Laberge of Montreal read a paper on "Some Civic Aspects of the Tuberculosis Problem." The association has decided to appoint a medical secretary for organization work and delivering lectures. Mr. H. H. Miller, M.P., was elected president. The next annual meeting will be held in Hamilton, Ont. A resolution was adopted calling on the Dominion government to establish a department of public health.

FOREIGN.

Prohibition of Salicylic Acid as a Preservative in Germany.—The German government has prohibited the further use of salicylic acid as a preservative.

Personal.—Dr. John B. Hellier has been appointed professor of obstetrics in the University of Leeds, to succeed Professor Wright.——Dr. E. O. Cott has been appointed lecturer on diseases of women, to succeed Dr. Hellier.

Medical Study Trip.—About a hundred students and assistants at the University of Leipsic visited Hamburg recently, under the leadership of Professor Curschmann, and inspected the medical and sanitary institutions of the great seaport.

The Smallpox Epidemic in Japan.—Passed Assistant-Surgeon Cummings reports from Yokohama that smallpox is still spreading rapidly; the outbreaks at Tokio and at Yokohama are unusually severe. No such outbreak has been known in Japan for fifteen years.

Fourth International Congress on Thalassotherapy.—This fourth international gathering to discuss the treatment of disease by sea air, sea bathing and sea voyages is to be held at Abbazia, "the Nice of the Adriatic," in Austria, the last three days of September, 1908.

Institute for Physical Diagnosis.—An institution for diagnosis by Roentgen processes, the sphygmomanometer and tonograph, electrocardiograms, etc., has recently been opened in Berlin where physicians can have their patients examined and labeled "while you wait."

Eightieth Birthday of Red Cross Founder.—May 8 will be the eightieth birthday of Henri Dunant, the founder of the Red Cross and the main promoter of the Geneva international conference in 1864. He is said to be living in poverty near Geneva, as he devoted all his property to the propaganda of the Red Cross, and the Nobel prize he received in 1901 was spent in paying debts thus acquired.

Prize for Protection Against the Tsetse Fly.—The president of the German Colonial Society, Duke Johann Albrecht zu Mecklenburg, announces that a prize of 6,000 marks ($1,500) will be awarded to any one who can suggest a means by which cattle can be protected against the bites of the tsetse flies while they are being taken through a region infected with these flies. The measure proposed must be applicable on a large scale.

Nostrum Manufacturer Fined at Berlin.—The Berlin Medical Chamber recently instigated proceedings against a man named Glück on account of the extravagant claims made in his advertisements for his remedy, "Glück's tea." In the course of the suit he stated that he had had 2,600 customers last year and that his net profits had been considerably over $5,000. He was sentenced to four weeks' imprisonment and a fine of about $400.

Hygienic Conferences for Barbers.—The Italian board of health has organized a course of lectures and practical demonstrations for barbers to be held at Rome and Florence, to give them an outline of the principles of anatomy, physiology and general hygiene of the skin, scalp and beard, also the recognition of the most common affections of these organs and tissues, and to train the barbers in means to protect themselves and their clients against contagious affections of the kind.

Prize for Best Work on Industrial Affections.—The permanent international committee for the study of professional affections offers a prize of $100 for the best work on some professional affection, especially one that is widespread in a given region. Communications must be in the hands of the secretary before Oct. 31, 1908. Address the "Presidenza della Commissione per lo Studio delle Malattie Professionali," via Monforte 14, Milan, Italy. Medals will be awarded for the second and third best works received.

Nostrums in Germany.—The *Allg. med. Ct.-Ztg.*, February 22, states: "The police have arrested the principal party, an American, who resided in a princely residence at Schmargendorf, near Berlin, and have thus broken up a secret medicine swindle which has been carried on on a large scale. This was the center from which a large aggregate of articles alleged to be for the common good of mankind have been distributed, among them 'Prof.' Keith Harvey's cure for deafness, the oxien preparations for heart disease, 'Prof.' Dana's asthma cure, remedies for 'loss of vigor,' the mystic 'Maxim planchette,' and others."

End of Suit Against Medical Paper for Alleged Slander.—THE JOURNAL published Dec. 14, 1907, page 2016, an account of the suit brought against the *München. med. Wochschr.* by Dr. H. Fischer of Berlin, who objected to the editorial criticism of his serving as assistant to a well-known quack. Notwithstanding that ample evidence was offered as to Fischer's unethical behavior and his abuse of the medical profession, the court decided in his favor, allowing damages of $25 and assessing the costs on the defendant. The case was appealed; the decision of the higher court, February 10, while admitting that Fischer had ground for complaint, reduced the damages to $7.50 and assessed him for two-thirds of the costs.

Opportunities for Postgraduate Work at Düsseldorf.—Prof. O. Witzel is chief of the newly organized Academy for Practical Medicine at Düsseldorf, and informs the profession in this country that foreign physicians are welcome at the clinics and institutes there as collaborators for a shorter or longer period. There are institutes for pathologic anatomy and experimental therapy, and clinics for surgery, gynecology, obstetrics and children's diseases. The courses are free to all except for a registration fee of about $1.25. A four weeks' postgraduate course for practitioners is announced to begin May 4, and another September 28, with bedside lectures and demonstrations in the clinics two afternoons during the semesters, with special work in the clinics and institutes during the entire year.

Opposition to Philanthropic Milk in Paris.—A few months ago Baron Henri Rothschild of Paris inaugurated the sale of sterilized milk at various stations at less than cost price to the poor—his innovation being founded on the similar work that has been done in New York by the philanthropist Strauss. The Paris milk dealers, however, have presented an organized opposition to this "philanthropic milk," and brought suit against Rothschild, alleging dishonest competition in the sale of milk, and demanding that the authorities put an end to the sale of the "philanthropic milk." The courts have now decided in favor of the milk dealers, we are informed, and the sale of the philanthropic milk is forbidden under penalty of a fine of $10 a day. Rothschild retired from the work some time ago, but it has been kept up by others since.

Antiquackery Lectures.—The professors of the medical faculty of the University of Göttingen have inaugurated a series of public lectures to educate the public in regard to the dangers of quackery. The first lecture was on the theme: "Medical Science and Quackery," and was presented in turn by three professors before a very large audience composed of all classes of society. A local daily paper had been commenting on the spectacle of the thousands flocking to the "miracle doctors," passing by the very gates of the university. The three Ausmeier brothers boast that they have more clients than all the professors together, although the Ausmeiers were only cabinet makers or cigar sorters before they began to treat the sick. The *Allg. med. Ct.-Ztg.* comments, however, that it is quite a question whether the antiquackery lectures will do any good.

Contract Practice in France.—Recent legislation on industrial accident insurance in France provides that injured workmen can have their "free choice" of a physician—the "American plan," as it is called. The insurance companies always oppose this "free choice," and lately they have been accumulating evidence which shows that a few young physicians have been conspiring with malingering workmen to defraud the companies. The national medical syndicate has officially requested the ministry of justice and labor to appoint a committee of delegates from the syndicate and from the insurance companies to investigate the cases in question, and also to examine into the way in which the insurance companies frequently succeed in evading the regulations in respect to "free

choice." An editorial on the subject in the *Progrès méd.* remarks that although the medical profession does not have the monopoly of honesty, yet almost its entire membership is entitled to respect and confidence, and that the few black sheep are not always to be found in the lower ranks. The problems involved in industrial accident insurance are being worked out now in Germany and France, and the medical press devotes much space to them. Courses for postgraduate instruction in various aspects of medical work, the making out of certificates, the question of ultimate indemnity, etc., are now being held regularly in Germany.

International Congress on Tuberculosis.—The national committee for France is composed of Dr. Louis Landouzy, Paris, president; Drs. Faisans, F. Bezançon and Le Gendre, vice-presidents; Drs. Triboulet, secretary-general of the last International Congress; Nobécourt and Léon Bernard; Dehand and Georges Bourgeois, secretaries, and M. Masson, treasurer.—— The secretary of the German committee is Dr. Johannes Nietner, secretary-general of the recent International Congress on Hygiene and Demography, and other members of the committee are: Dr. Gotthold Pannwitz, secretary-general of the International Tuberculosis Association; Drs. Fränkel, Ernst von Leyden and Johannes Orth.——Dr. P. K. Pel, Amsterdam, is chairman of the committee for Holland, and Dr. W. J. von Gorcum, The Hague, secretary, and Dr. N. P. Tenderloo, Leyden, a member.——The Venezuelan committee is composed of Dr. A. Herrera Vegas, Caracas, chairman; Dr. P. Acosta Ortiz, Vargas, vice-president, and Dr. L. Razetti, vice rector of the University of Venezuela and permanent secretary of the National Academy of Medicine, is also a member.—— The Brazilian committee consists of Dr. J. J. Azevedo Lima, Rio de Janeiro, president of the Brazilian Antituberculosis League; Dr. Oswaldo Cruz, director general of the Department of Public Health; Dr. J. J. Seabra and Dr. Cypriano de Freitas of Rio de Janeiro.——The president of the Cuban committee is Dr. Guiteras, Havana; the vice-president, Dr. J. L. Jacobsen, president of the Cuban Antituberculosis league, and the secretary, Dr. M. G. Lebredo, Havana. Two of the members of the committee are Dr. Aristides Agramonte, the last surviving member of the famous yellow fever commission, and Dr. Carlos J. Finlay of Havana.——The chairman of the committee for Greece is Dr. B. Patrikios, secretary of the State Department of Health; the secretary, Dr. Aristote Kouzis, Athens, and Drs. Constant Savas, physician to the king and professor of hygiene in the University of Athens; P. Manoussos, director-in-chief of the Athens Military Hospital; Kallionzis, professor of surgery; and Pierre J. Rondopoulo, professor of pathology in the University of Athens.——The Hon. Otto von Printzkold is chairman of the Swedish committee, and Dr. Bertil Buhre, president of the Swedish Antituberculosis League, is secretary.——The Costa Rican committee has named Dr. Louis P. Jiminez, chairman; and Dr. Teodoro Picado, secretary; and Drs. Teodoro Prestinary, Benjamin Hernandez and Marcos Zunega, all of San José, are members. ——Three chairmen have been named by the Austrian committee: Prof. Leopold von Schrötter, and Drs. Weichselbaum and Richard Paltauf, of the University of Vienna, and secretaries, Drs. H. von Schrötter, L. Teleky and J. D. Bartel.—— Dr. M. Rousseff, director of the Department of Health of Sofia, is president of the Bulgarian committee; Dr. Ivan Oggnianoff, secretary of the Superior Board of Health, Sofia, secretary, and the members include Drs. Georghi Zolotovitch, Ivan Theororoff, director of the Sanatorium for Tuberculosis, Trojan, and Dr. S. A. Valcovitch.

LONDON LETTER.

(*From Our Regular Correspondent.*)

LONDON, March 11, 1908.

Tuberculosis in the British Army.

The British war office committee on tuberculosis in the army believes that the disease can be combated by the use of civil sanatoria at the cost of $100,000 a year. The present method of sending a man to the military hospital and then discharging him from the army as soon as he is fit to travel has long been regarded as harsh. The proposed regulation will need the approval of the authorities, but the committee is very strong. The nation is concerned in the loss of wage-earning power which is meant by throwing the unfit on to the labor market, and the records of sanatoria seem sufficiently good to offer encouragement to prompt action.

Sanatoria for Postoffice Employés.

Postoffice employés suffering from consumption are to be provided with sanatoria. Mr. Buxton, the British postmaster general, replying to a question in the House of Commons on this point, said that while there is no fund at his disposal out of which support could be given to a voluntary scheme, he has sanctioned contributions to the building fund of the sanatorium from accumulated fine funds in certain postoffices.

Goat's Milk and Malta Fever.

Since the prohibition of the use of goats' milk, Malta fever has decreased in a remarkable manner in the island of Malta. The number of cases of Malta fever occurring among the British troops in Malta and the number of deaths during the years 1905, 1906 and 1907, were respectively: n 1905, 643 cases, 18 deaths; in 1906, 191 cases, 6 deaths; in 1907, 11 cases, one death. The reduction in the number of cases among the troops in Malta is solely attributed to the prohibition of the use of goats' milk in barracks and hospitals. Protective inoculation has not been used for the troops. The disease, according to information received from the board of health in Malta, continues to prevail among the native population, without any change or abatement.

Milk Supply of Ireland.

An order of the British local government board issued recently contains important regulations relating to dairies, cowsheds and milk shops in Ireland. An important provision of the order is as follows: "Every purveyor of milk or person selling milk by retail shall take all reasonable and proper precautions in connection with the storage and distribution of milk and otherwise to prevent the exposure of the milk to infection or contamination. Persons suffering from pulmonary tuberculosis or any other infectious disease are prohibited from handling milk vessels or assisting in the sale of milk."

VIENNA LETTER.

(*From Our Regular Correspondent.*)

VIENNA, March 10, 1908.

Society for the Suppression of Venereal Disease.

The Austrian Society for the Suppression of Venereal Disease is now holding its second annual meeting. The session will continue throughout the entire month of March, each day being devoted to the discussion of a different question. The questions of the importance of venereal diseases and of their spread and extent will be discussed by medical men only. The causes of the spread of venereal diseases will be the subject of discussion not only by physicians but by such members of the laity as are competent to speak on the subject. Prostitution, both private and public, will be spoken of by police officials, judges and others. The question of instructing the adolescent in sexual matters will be one of the important subjects brought up at this meeting, and teachers as well as physicians will enter into its discussion.

The Winter Term at the University.

The winter term at the university has just come to an end and the vacation of four weeks is now on. Most of the students return to their homes for this period except, of course, the Americans, of whom at present there are over eighty. As a rule, most of the American postgraduate men obtain a position in the clinics or wards as externes, after having taken several courses with the professors or their assistants. American physicians can be met both in the Polyclinic and the General Hospital especially in the eye, ear, nose and throat departments. In the gynecologic and the pathologic laboratories there is nearly always an English-speaking class with lectures in English. The American Medical Association of Vienna controls nearly all these classes, and its influence helps many a newcomer to obtain the best value for his time and money.

A Sanatorium Owned by the Profession.

A movement is on foot to establish a medical and surgical sanatorium for the middle classes, the profits of which shall go to the medical profession. As all the establishments of this kind pay large dividends, some enterprising members of the profession have raised sufficient money to establish a place of this kind. After paying a dividend of about 4 or 5 per cent. to the shareholders the profits will go to the funds of charitable institutions of the profession such as the widow and orphan fund, legal protection fund, etc.

The "Keith-Harvey" Electric Battery Stopped.

The Austrian government has notified "Prof." Keith-Harvey that objection has been taken to his "electric hearing battery" and its importation is forbidden. This action is due largely to the active steps taken by the Vienna Otological Society, which has urged the government to prevent the sale of frauds.

Therapeutics

Iodin.

Dr. W. T. Dannreuther, of New York (*Medical Record*, Jan. 25, 1908), calls attention to the surgical value of iodin. He finds it "of high germicidal potency and one of the most valuable antiseptics in our armamentarium, and endowed with remarkable penetrating power." He calls attention to the fact that iodoform, though containing 96 per cent. of iodin, is not a germicide, although used so many times as a drier in surgical dressings. He has also seen several cases of iodoform poisoning from its surgical use. [Certain it is that, except possibly in tuberculosis of bones or tendons, where an oily mixture of iodoform may be injected directly into the diseased tissue, the obnoxious and unnecessary odor of iodoform is an insult to humanity that should not be perpetrated in any private family, and hardly in a public institution. The fact that many other more efficient and harmless antiseptic powders may be used in surgical dressings precludes the necessity of using iodoform. The sprinkling of iodoform over operation areas seems to partake of the oblique line over the symbol ℞, the abbreviation for recipe, i. e., an appeal to the gods that the operation will be successful and the patient get well.—ED.]

The various other iodin-bearing compounds of varying strength have been found by Dannreuther not to be so efficient in germicidal activities as the freshly prepared tincture of iodin. The amount of the tincture of iodin used should be "enough and not too much," the amount depending on the part to which the iodin is to be applied, mucous membranes and granulation tissues not receiving so much of the iodin as the unbroken skin. He has found very useful "a watery solution of iodin made by adding 4 c.c. (1 dram) of tincture of iodin to 1,000 c.c. (1 quart) of water."

Dannreuther describes the well-known action of iodin as a counter-irritant on the unbroken skin. He finds it of great value in scalp wounds. After shaving, he thoroughly washes with green soap and water and makes the part as clean as possible. He then injects the tincture of iodin directly into the wound with an ordinary medicine dropper. The sutures are then introduced and a wet gauze dressing applied, which dressing must be kept constantly wet. "Scalp wounds so treated heal by primary union."

He treats erysipelas by painting the region of efflorescence and a wide border of the healthy skin with the tincture of iodin, and in no case has he seen an extension of the erysipelatous rash.

He finds iodin of value in stimulating sluggish granulations in indolent ulcers, applying the tincture directly to the granulation tissue. In gangrenous ulcers he finds that the iodin will limit the process and hasten the sloughing, and prevent the disagreeable odor.

In preparation for surgical operations he advises, after the hands are cleansed with green soap and water, immersion in a 1 per cent. watery solution of iodin and potassium iodid. During the operation the hands may be frequently dipped into a basin containing this solution. Such a solution has been found to render the hands sterile in thirty seconds. Any after-staining of the skin may be readily removed by ammonia water.

The tincture of iodin is efficient as a disinfectant of the skin before laparotomy incisions, especially in the region of the umbilicus, and one application with a camel's hair brush is all that is necessary. Goelet, of New York, is quoted as using a watery solution of iodin (a fluidram of the tincture to a quart of water) "for irrigating the abdominal wound after closing the peritoneum," believing that this is an efficient antiseptic for this purpose.

Dannreuther also suggests vaginal tampons dipped in 1 fluidram of the tincture of iodin to 4 ounces of glycerin, as a valuable counter-irritant in pelvic inflammations. He also advises before curettage for endometritis an intrauterine douche of a watery solution (1 fluidram of the tincture of iodin to a quart of water) as "limiting the oozing, contracting the muscular fibers, and rendering the uterine cavity sterile." After curettage for abortion, he frequently swabs out the uterus with the full strength of the tincture. Should the abortion be septic, he uses an iodin intrauterine douche three times a day.

Anemia.

Dr. Curran Pope, Louisville, Ky., discusses the treatment of this condition in the *New York Medical Journal*, Nov. 2, 1907. He enumerates the well-known causes of anemia and emphasizes the relation of chronic gastrointestinal and hepatic disease to this condition of the blood. He believes that many times anemia is due to an absence of sunlight and daylight, and finds that those who work indoors all day in the winter and go home after dark, thus getting practically no sunlight and but poor daylight, are prone to anemia, and especially to a diminution of the hemoglobin.

In combating the anemia, of greatest importance is the improvement of the hygienic condition of the patient, fresh air, sunlight, moderate exercise, and deep inhalations to increase the absorption of oxygen and the carbon dioxid elimination. The diet should be based on the intestinal condition, being the most nutritious and of the kind that can best be digested. The constipation should, of course, be combated, and most important of all, gastrointestinal fermentation and intoxication, as evidenced by the finding of indican and sulphates in the urine, should be prevented.

Pope finds this intestinal fermentation best combated by the feeding of sour milk. The milk is first sterilized and then soured by means of the lactic acid bacillus. [Tablets for souring milk artificially are now on the market.] This sour milk is nutritious, easily digested, and perhaps one of "the best of natural antiseptics."

Pope emphasizes the advantages of various hydrotherapeutic measures, electrotherapy, electric light baths, massage and vibratory treatments. He also finds that he can cure anemia without the administration of iron and arsenic.

There can be no question of the advantages of fresh air and sunlight to patients suffering from anemia, and there could be no better treatment than the open-air sanatorium treatment advocated for tuberculosis for these anemic patients. The next most important thing is the prevention of the absorption of toxins from the intestine, and many a patient with anemia has improved on saline cathartics. It is certainly better to give a diet and such laxatives as are needed to prevent intestinal fermentation than to attempt to combat such fermentation with so-called bowel antiseptics. Patients who can not take the rest, sunshine and fresh-air cure do improve with iron, and they will improve as much with an inorganic iron as with any organic iron. The mistake has been that too much iron is administered, hence some peptonate or albuminate or other organic iron has been said to be better tolerated. The mistake has been that the dose of the inorganic iron was not small enough. Very little is needed to satisfy the economy for iron. A small dose of the tincture of the chlorid of iron, or the reduced iron in tablet or capsule, or the pill of the carbonate of iron (Blaud), or the saccharated oxid of iron present a variety of inorganic irons sufficient to meet any indication. The multitude of other iron preparations is not needed and is superfluous.

Occasionally arsenic seems to be of value in anemia, but certainly it should be given in small doses only. Large doses

do harm, and perhaps arsenic could be dropped from the Pharmacopeia without much therapeutic loss.

Manganese has sometimes seemed to act as well as iron in anemia, but certainly it could act no better.

In chlorosis, so generally accompanied as it is with amenorrhea, the best treatment is thyroid substance in small doses, as:

℞.	gm.		
Glandularum thyroidearum siccarum.....	3	or	gr. xlv

Fac capsulas 20 (dry).

Sig.: One capsule three times a day, after meals.

Or:

℞.	gm.		
Glandularum thyroidearum siccarum.....	2		
Ferri reducti	2	or	āā, gr. xxx

M. et fac capsulas 20 (dry).

Sig.: One capsule, three times a day, after meals.

Iron may be given as follows:

℞.	c.c.		
Tincturæ ferri chloridi.....	5		fl℥iss
Syrupi acidi citrici.....	25	or	fl℥i
Aquæ	ad 100		ad fl℥iv

M. et Sig.: A teaspoonful, in water, three times a day, after meals.

Or:

℞.	gm.		
Ferri reducti	2	or	gr. xxx

Fac capsulas 20 (dry).

Sig.: One capsule, three times a day, after meals.

Or:

℞.	gm.		
Tabletas ferri reducti, āā.....	.065	or	gr. i

No. 20.

Sig.: One tablet, three times a day, after meals.

Or:

℞.

Pilulas ferri carbonatis. (Blaud) No. 20.

Sig.: One pill, three times a day, after meals.

Or:

℞.	gm.		
Strychninæ sulphatis	.02		gr. ⅓
Ferri reducti	1	or	gr. xv
Quininæ sulphatis	2		gr. xxx

M. et fac capsulas 20 (dry).

Sig.: One capsule, three times a day, after meals.

Or:

℞.	gm.		
Arseni trioxidi	.02		
Strychninæ sulphatis	.02	or	āā, gr. ⅓
Ferri reducti	1		gr. xv
Quininæ sulphatis	2		gr. xxx

M. et fac capsulas 20 (dry).

Sig.: One capsule, three times a day, after meals.

Or:

℞.	gm.		
Strychninæ sulphatis	.04		gr. ⅔
Quininæ sulphatis	1	or	gr. xv
Massæ ferri carbonatis.....	2		gr. xxx

M. et fac pilulas 20.

Sig.: One pill three times a day, after meals.

Or:

℞.	gm.		
Ferri reducti	1	or	gr. xv
Salicini	10		3iiss

M. et fac konseal. 20.

Sig.: One wafer three times a day, before meals.

If it is deemed advisable to use manganese, it may be given as follows:

℞.	gm.		
Mangani dioxidi præcipitati.....	3	or	gr. xlv
Ferri reducti	2		gr. xxx

M. et fac capsulas 20 (dry).

Sig.: One capsule, three times daily, after meals.

Pharmacology

THE BROADER AIMS OF THE COUNCIL ON PHARMACY AND CHEMISTRY.

TORALD SOLLMANN, M.D.

Member of the Council, Professor of Pharmacology and Materia Medica at the Medical Department of Western Reserve University.

CLEVELAND, OHIO.

I. INTRODUCTORY.

For three years the Council on Pharmacy and Chemistry has labored at its task of investigating proprietary remedies, compiling and weighing evidence, editing and publishing information. With the appearance of the third edition of its little book—New and Non-Official Remedies—which will be out soon, practically all the eligible proprietary preparations on the market will have been classified, and the end of this task will be in sight. Will this mean the end of the labors of the Council? At a recent meeting of the Board of Trustees of the American Medical Association four very active men were appointed, or reappointed, to the Council, to fill the place of those whose time of service had expired. The Trustees further acceded to the request of the Council for the appointment of a staff of clinical consultants or associates. This does not look as if the Council intended to go into retirement.

Of course, there will need to be continued investigations of new discoveries and some supervision over those which have been approved. Products which for one reason or another have not yet come up to the requirements, are making serious, honest endeavors to do so, and it may be presumed that the number of these will increase. The aid extended to them for this end involves an amount of work which few outside of the Council can realize. But all this is routine, merely a part of what the Council has done all along. If this were to be its only work in the future, the membership of the Council could be reduced. The fact is, the work which the Council has done so far, important as it has been, was largely preliminary to a larger and broader aim—the general reformation of what is debased and debasing in the present status of therapy. The therapeutic evils of the day may have many roots and branches, and they all need more or less pruning. But the most glaring evils were those arising from prescribing secret or semi-secret proprietaries, and the reformation of these was accordingly the first goal of the Council. The first step was the obvious one of gathering the necessary information and it was on this that the Council has been mainly engaged; and this is the part of the work which is now largely accomplished.

The next step, which must soon be taken, is that of acquainting the medical public with what the Council has learned, and securing the cooperation of physicians in making this information effective. Up to the present the task of the Council has been laborious, indeed, but plain. Now it becomes more difficult. Up to the present time the Council could work in silence—now it must use its voice. What it has done and hopes to do; what use to make of its findings and advice; what part must be played in this movement for better therapeutics by every physician who cares for the welfare of his patients—for the progress of medicine—these matters must be thought out and discussed.

These were the thoughts and considerations which led me to accept the invitation of the chairman of the Council and editor of THE JOURNAL to write a series of short papers on these questions as I view them. I have accepted the invitation with honest diffidence, with the realization of deficiencies in ability, knowledge, opportunities and time. In extenuation, however, I can plead the honest willingness to do my share toward a movement which, as I conceive it, is the most

important that has occurred in the domain of medicine for a generation at least. Surgical technic, physical and clinical diagnosis, anatomy and pathology, laboratory research—in short, every department of medical science is making satisfactory progress. Therapeutics alone has not kept pace; in some respects it has gone backward. Is it fair to the patient to dismiss the subject with a shrug of the shoulders? How many have honestly and earnestly labored toward its advancement? Is it astonishing that therapeutics is where it is and what it is?

To avoid misunderstandings, I must emphasize that in these papers I shall speak as a private in the ranks and not as a member of the Council. I shall, indeed, aim to represent the sentiments of this body, as I know them; but as it would be obviously impractical to submit to them every word that I shall say, here and elsewhere, it would not be fair to saddle the Council with any of the responsibility.

(To be continued.)

A. Slocum at the Philadelphia Polyclinic. If I remember correctly the same combination was employed by the late Dr. Albert Smith.

℞.	gm. or c.c.		
Ferri sulphatis	2	30	gr. xxxvi
Magnesii sulphatis	60	or	ʒii
Acidi sulphurici dil.	60		fl ʒii
Infusi gentianæ comp.	180		fl ʒvi

M. Sig.: A tablespoonful in water before breakfast, or two tablespoonfuls in water after each meal.

Schamberg's compend on "Diseases of the Skin" mentions this formula on page 88 (1900 edition), but gives aqua menthæ piperitæ in place of the gentian.

FRANCIS ASHLEY FAUGHT.

Medical Letters

AS we have millions of medical letters we can fill orders for any quantity from 1,000 up. Following is a list of some of the different classes of these letters that we can furnish promptly:

Asthma.	General Medical.
Blood Poison.	Hair Preparations.
Bust Developer.	Heart.
Cancer.	Kidney.
Catarrh.	Morphine.
Constipation.	Nervous Debility.
Consumption.	Obesity.
Deafness.	Paralysis.
Drunkenness.	Piles.
Dyspepsia.	Rheumatism.
Eczema.	Rupture.
Eye Troubles.	Syphilis.
Epilepsy.	Stomach.
Female Complaints.	Skin Disease

Etc., Etc., Etc.

These letters were all written to well known and successful medical advertisers, and are a very profitable class of letters for anyone with a legitimate medical proposition to use.

If you have a medical proposition to get before the people it is most important that you should use original letters. By this plan you can avoid all waste of time and money, addressing only people who are interested in what you have to offer.

Write us for particulars and prices regarding the class of letters you are interested in.

THE CONFIDENCE OF QUACKS.

Letters Sent Confidentially to Medical Fakers and How They Are Used.

We here reproduce a page from a pamphlet issued by the Guild Company, letter brokers, Nassau street, New York City.

"We conduct the largest letter brokerage business in the world," says the circular, "deal only in original letters, handle no lists, hence can guarantee that every letter we offer was written in response to an advertisement, and therefore gives the name, address and other valuable information regarding a person accustomed to dealing through the mails."

"In the case of medical letters you are immediately in possession of the names and addresses of sufferers from a particular disease or ailment and do not waste time and money aiming promiscuously at thousands of people of whom only a few are likely to be receptive of your proposition."

Samuel Hopkins Adams, writing in "Collier's Weekly," wisely said, referring to a similar list:

"If you have ever been foolish enough to write to any of the quacks and frauds in that list, you may know that your letter is now for sale. You may know that all the things you have said about your health and your person —intimate details which you carefully conceal from your friends and neighbors—are the property of any person who cares to pay four or five dollars for the letters of yourself and others like you."

Mistura Ferri Acida.

PHILADELPHIA, March 9, 1908.

To the Editor:—In THE JOURNAL, March 7, page 784, mention is made of the old mistura ferri acida. The formulas published differ somewhat from the combination which I have been calling by the same name. It may be of interest to your readers to know that a preparation containing considerably more iron has been in use in this city for many years. This formula was first made known to me shortly after graduation, when I was serving as clinical assistant to Dr. Harris

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

BURNHAM'S SOLUBLE IODIN.

W. A. Puckner and A. H. Clark.

Burnham's Soluble Iodin, according to the manufacturers, is one of the most noteworthy "discoveries" of the age. The advertisements aim to create an impression that while the product contains iodin, pure and simple, yet by some secret process this element has been so changed as no longer to possess its usual properties. The Burnham Soluble Iodin Company makes such extravagant claims for its product and gives such wide publicity to these claims that it seemed advisable, in the interests of the profession, to determine the nature of the preparation. Its examination was accordingly taken up in the laboratory of the American Medical Association.

From the analysis,[1] given in detail below, we conclude that Burnham's Soluble Iodin is a solution of iodin in alcohol made miscible with water by the presence of some iodid. Wilbert[2] and other investigators have arrived at practically the same conclusion.

Whatever the secret process, hinted at in the advertisements, by which this preparation is evolved, the fact remains that when one prescribes Burnham's Soluble Iodin, one is prescribing iodin, together with an iodid, the nature of which is hard to determine. The iodid is not present as potassium iodid nor, entirely, at least, as hydrogen iodid (hydriodic acid), but this is of slight importance compared with the fact that it is a solution in alcohol of free iodin and an iodid, and therefore is essentially the same as Lugol's solution.

The amount of iodin found corresponds approximately to 3.0 gm. of free iodin and 2.0 gm. of combined iodin in 100 c.c. of the solution. Lugol's solution contains 5.0 gm. free iodin, and 10.0 gm. potassium iodid in 100 c.c.

BURNHAM'S SOLUBLE IODIN TABLETS.

Burnham's Soluble Iodin Tablets are a light brown compressed tablet, stamped with the letters B. S. I. in monogram. Each tablet is said to contain 3 minims Burnham's Soluble Iodin.

The average weight of each tablet was found to be 0.3526 gm.; since Burnham's Soluble Iodin was found to have a specific gravity of .8527 and to contain 4.5 per cent. total iodin, the tablets should contain approximately 2.3 per cent. total iodin, about one-half to two-thirds of which, depending on the condition of the "Soluble Iodin" from which they are made, should be free iodin. Instead of this, only 0.317 per cent. free iodin and 1.57 per cent. total iodin was found. The analysis in detail is given below.[3] It shows that Burnham's Soluble Iodin tablets contain approximately one-fourth the amount of free iodin and approximately two-thirds the amount of total iodin which should be contained therein if, in accordance with the label, each tablet contains 3 minims of Burnham's Soluble Iodin.

COMMENT.

The literature put out by the Burnham Soluble Iodin Company is in itself enough to condemn the products it advertises. The much emphasized statement of the company that

"Something had to be done: and Burnham's Soluble Iodin is that which has been done"

fulfils, in its blatant assertiveness, all the requirements of nostrum advertising. The results of the analyses are not, therefore, a surprise.

Secrecy is just as essential to-day to the successful exploitation of this class of proprietaries as it was before the demand for formulas became so universal. The requirement of publicity is evaded, therefore, in one of two ways: Either a formula is given which is false, or at least meaningless, or else the claim is made that the method of preparing the product is a unique and remarkable secret that is possessed only by the manufacturers. The Burnham Soluble Iodin Company uses the latter device.

Meanwhile, physicians will be perfectly justified in viewing with suspicion all claims based on such conspicuously unscientific premises, more especially so when these claims fail to find substantiation on careful and painstaking analyses. In brief, whenever the physician wishes to administer free iodin, Lugol's solution (Liquor Iodi Compositus, U. S. P., Physician's Manual, page 84) is an inexpensive and perfectly available preparation.

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1. ANALYSIS OF BURNHAM'S SOLUBLE IODIN: At different times two specimens were purchased in the open market and examined. In the report they are referred to as Specimen No. 1 and Specimen No. 2. Burnham's Soluble Iodin is a reddish brown liquid, having a slight odor of iodin and is miscible with water in all proportions.

Iodin: The presence of free iodin is shown by the usual starch test and the violet color when extracted with chloroform.

Free Acid: When mixed with water and decolorized with sodium thiosulphate the solution obtained is distinctly acid in reaction. Also, if all iodin is extracted with chloroform the colorless solution which remains is strongly acid in reaction.

Iodids: The colorless acid solution obtained when all free iodin is removed by extracting with chloroform responds to tests for iodids, i. e., gives with silver nitrate a yellow precipitate which is insoluble in nitric acid; on the addition of sulphuric acid followed by ferric chlorid, hydrogen dioxid, potassium permanganate or potassium dichromate, free iodin is liberated.

Glycerin: By evaporating on a water bath, Burnham's Soluble Iodin leaves a thick dark brown residue which is volatile only after prolonged heating. The usual milk of lime method for separation of glycerin failed to demonstrate its presence.

Alcohol: In a portion of Burnham's Soluble Iodin the free iodin was destroyed with sodium thiosulphate, the solution made alkaline with sodium hydroxid and distilled. Ethyl alcohol was detected in the distillate by the iodoform test.

Ethyl Acetate: The solution remaining after the removal of free iodin with sodium thiosulphate has an odor closely resembling ethyl acetate.

Estimation of Free Iodin: A weighed quantity of Burnham's Soluble Iodin was added to 10 c.c. of water and titrated with tenth normal sodium thiosulphate volumetric solution.

Estimation of Total Iodin: (1) A weighed quantity of Burnham's Soluble Iodin was added to a solution of 2 gm. of potassium hydroxid in 10 c.c. of water, evaporated nearly to dryness, a little starch added to facilitate desiccation, the mixture then brought to dryness and ignited. The residue was then extracted with hot water and in this solution the iodin determined as silver iodid. (2) The same procedure as in (1) was used except that in place of precipitating the iodin as silver iodid it was liberated by the addition of hydrochloric acid and ferric chlorid, extracted with chloroform and titrated with tenth normal sodium thiosulphate volumetric solution. (3) Free iodin was reduced to iodid with sulphurous acid and in the clear solution total iodid determined by precipitation as silver iodid. (4) Free iodin was extracted with chloroform. To the clear liquid remaining in the separator sulphuric acid and ferric sulphate were added and liberated iodin extracted with chloroform. The combined chloroformic extracts were then titrated with tenth normal sodium thiosulphate volumetric solution, or each titrated separately and the two results then combined.

Estimation of Free Acid: A weighed quantity of Burnham's Soluble Iodin was added to 10 c.c. of water and the iodin titrated with tenth normal sodium thiosulphate volumetric solution. To the colorless liquid phenolphthalein was then added and the free acid determined by titration with tenth normal alkali. The volume of alkali consumed was then calculated to hydrogen iodid and from this the figures representing combined iodin, in the table under Combined iodin, calculated from acidity, were calculated. It will be seen that the amount of iodin here indicated added to the free iodin found exceeds the total iodin by a large amount. It is plain, then, that this acidity is not due entirely to hydrogen iodid and may be due to another acid entirely and the iodid ions otherwise combined than with the hydrogen ions. It will be seen that as the free iodin increases in Specimen No. 2, the acidity decreases in proportion, the sum of the two being always about the same. The results are here tabulated.

	Free Iodin.	Total Iodin. Method 1.	Total Iodin. Method 2.	Total Iodin. Method 3.	Total Iodin. Method 4.	Combined Iodin. 1. Total iodin less free iodin.	Combined Iodin. 2. Calculated from acidity.
Specimen No. 1.	2.65	4.45	4.50	...	...	1.83	2.45
	2.57	4.52	4.51	...	...	1.95	2.40
Specimen No. 2.	2.40	4.67	...	4.58	4.58	2.21	2.55
	3.06	4.66	...	...	...	...	...
	3.14	...	...	...	...	...	2.02
	3.23	...	...	...	...	...	1.91

Alcohol: To 25 c.c. Burnham's Soluble Iodin, sodium thiosulphate was added in quantity just sufficient to decolorize. The solution was at once added to 5 gm. of potassium hydroxid dissolved in 100 c.c. of water. Of this mixture, exactly 100 c.c. was distilled over and the specific gravity of the distillate determined; all measurements being made at a temperature of 15.6 C., 92 per cent. by volume of ethyl alcohol was indicated.

Specific Gravity: The weight of 25 c.c. of Burnham's Soluble Iodin is 21.3177 gm., indicating a specific gravity of .8527.

2. Proc. Am. Pharm. Assn., 1903, li, 409.

3. Three packages of 100 tablets each were purchased in the open market. From each package 25 tablets were removed, powdered and thoroughly mixed, and the mixture was used for the determinations.

Free Iodin: Of the powder prepared as above 5 gm. was mixed with 50 c.c. of water and starch paste added. A faint blue color developed indicating the presence of iodin. On drop of a tenth normal sodium thiosulphate volumetric solution discharged this blue color. On standing a few moments the blue color returned and another drop was added. This was repeated until a solution free from blue color remained even after standing one and one-half hours. A total of 1.26 c.c. tenth normal sodium thiosulphate was used indicating .317 per cent. iodin.

Total Iodin: A weighed quantity of the powdered tablets was mixed with a solution of 2 gm. of potassium hydroxid in 10 c.c. of water, evaporated and ignited. The residue was extracted with hot water and in the solution the total halogen determined by precipitation as silver halid. It was found that 2.4213 gm. of Burnham's Soluble Iodin Tablets gave .0716 gm. of silver iodid, indicating .03865 gm. or 1.59 per cent. iodin. In a duplicate 2.9341 gm. of the tablets gave .0841 gm. of silver iodid, indicating .04544 gm. or 1.55 per cent. iodin.

The St. Louis Medical Society of City Hospital Alumni and Medical Advertising.

The question of the character of advertising in medical journals has been brought to the fore by the Medical Society of City Hospital Alumni in St. Louis.

A paper was read before that society February 6 and the author declined to hand it over to the journal that prints its scientific proceedings for the reason that the advertising columns of that publication contained notices of more than twenty-five preparations not found in the list of remedies tentatively approved by the Council on Pharmacy and Chemistry. In a letter to the president of the society, Dr. William E. Sauer, the author of the paper in question, Dr. George Homan, says:

Presumably their omission from that list signifies a lack of pharmaceutic merit or therapeutic value as judged and decided by the only competent court officially constituted by the organized profession for that purpose. This body has built a highway and set clear lights burning across what a few years ago was a quagmire in which the profession helplessly floundered, and for such light and deliverance every consistent member of the American Medical Association owes thanks and loyal support in further works to the same end.

This observation is pertinent for the reason that the publisher of the journal in question is a physician in presumed good standing in his local society, and by that fact pledged professionally not only to advance the just efforts and aims of the body mentioned, but to refrain from acts calculated to discredit such work or to encourage among physicians any departure from the tests and standards declared by the Council and approved by the Association. This is a matter that touches the honesty and good faith of the profession, for without clean hands and clean skirts how can the local societies, the state associations, and the national body with good grace wage war on practically the same sort of advertising in the non-medical press?

The status of medical men holding membership in the American Medical Association, who are publishers of such journals and responsible in a business sense therefor, is different from that of all other classes of publishers, being thereby amenable to discipline, and their good professional standing is bound to be sharply challenged because of the dual rôle assumed, and by reason of an attitude that does not square in morals with the purposes of the profession as repeatedly and officially declared. In such cases the dividing line between the claim of the counting room and that of the consultation room must be extremely difficult to locate, for all human experience shows that no man can serve two masters whose interests lie at opposite points of the compass. . . .

. . . The underlying moral question is a weighty one to the profession and may become a burning issue, and while the society of which you are the head has no official relation to the American Medical Association, still a great many of its members belong to the organization which does stand locally for that body, and it can hardly be thought that the ethical standard of one would be lower than that of the other; and, consequently, no uncertain sound should be given forth as the ultimate demand for accounting and quittance on those who transgress may yet be voiced as of old: Choose ye this day, therefore, whom ye will serve, God or Mammon!

The matter was referred for consideration to a committee, which reported on March 5 that in view of the existing engagement between the society and the journal the obligation to deliver to the latter copy of its scientific work could not be repudiated until next December; this report was accepted, but not until a unanimous expression of opinion was made, by all who spoke, in condemnation of the character of the advertising mentioned, and of the obligation resting on the profession to clean house in this respect.

It is likely that this matter will shortly be pressed on the attention of the organized profession of Missouri in another form.

Efficiency.—The best possible equipment for the practice of medicine is the best possible medical education. But as Burns has said, "A man's a man for a' that." Therefore, the man rich in qualities of soul with the highest scientific attainments is he who will acquire most easily and retain most permanently the confidence of his patients.—*Leucocyte.*

Correspondence

Subphrenic Abscess Complicating Appendicitis.

STOUGHTON, WIS., March 21, 1908.

To the Editor:—Dr. D. N. Eisendrath, in THE JOURNAL, March 7, states that few cases of subphrenic abscess have been recorded as a complication of appendicitis. I wish, therefore, to report the following case:

O. J. E., male, aged 27, a laborer, had an attack of acute appendicitis Jan. 12, 1908. He had never been ill before. He had the symptoms of a bad case, and became steadily worse until the second day, when his temperature and pulse dropped to nearly normal and vomiting stopped. The pain, however, became worse. I therefore diagnosed gangrene of the appendix. He was at once removed to the hospital on a stretcher and I operated on him within an hour. The appendix was found gangrenous, black with greenish flakes and with a perforation near the tip; it was lying in a collection of thin, very bad smelling serum, yet there was no macroscopic pus. The appendix was removed and the wound drained. There was a complete recovery, so far as all clinical symptoms go. The patient left the hospital in fourteen days with a good appetite.

He returned March 14 with fever and a pain in the right side under the ribs. He complained that he "could not breathe" and that he had not slept for two nights. Examination disclosed a tender place between the axillary lines over the ninth and tenth ribs, plainly edematous. His pulse was 120, respiration 24 and temperature 102. He passed a poor night. I operated in the morning by Eisendrath's method and after removal of the tenth rib inserted the needle repeatedly until I found the pus in the anterior axillary line. I opened and found a channel between the liver and diaphragm leading two inches up to the cupula of the liver and ending in a cavity in the liver substance about the size of a walnut. The diaphragm was intact. The pus was thin pinkish with yellow stripes and flakes in it and had no odor. A drain was put in and most of the wound sewed up. Temperature fell to normal and within sixteen hours the man was hungry. He is doing well.

M. IVERSON.

Unauthorized Reference in Advertisements to Physicians.

PHILADELPHIA, March 18, 1908.

To the Editor:—Some years ago my attention was called to an advertisement in a religious newspaper of a nebulizing apparatus vaunted as a catarrh "cure" by Mr. Ernest J. Stevens, president of the Physicians' Standard Supply Company of Philadelphia.

Mr. Stevens "referred" to Dr. J. Solis-Cohen, Dr. Charles Turnbull and myself. As our only connection with Mr. Stevens had been to prescribe for him or to purchase instruments from him, he was immediately notified to withdraw the advertisement, and the editor was informed that the names had been used without the knowledge or consent of their owners.

Mr. Stevens apologized, stating that he had intended the reference to apply only to his business responsibility and had not supposed that it could be construed as an indorsement of his wares, and promised to suppress the advertisement and not to offend again. As my purchases from Mr. Stevens had been satisfactory and I had no reason to doubt his word, I accepted the apology and supposed that that would end the matter.

To-day I am in receipt of a circular issued by the Physicians' Standard Supply Company of Philadelphia advertising a "perfection douche." What it is I do not know; I have never seen it, much less used or indorsed it, but I find again the same "references," namely, Dr. J. Solis-Cohen, Dr. Charles Turnbull and myself—all used equally without authority and without the knowledge of the persons concerned.

Whatever kindly feeling toward Mr. Stevens I might previously have entertained can not survive this evidence of his duplicity—this persistent misuse of names of professional men in an equivocal connection. I desire, therefore, to give notice through your columns that Mr. Stevens has no authority whatever to refer to me, and that my opinion of him is one that would not look well in print.

SOLOMON SOLIS-COHEN.

Bismuth Treatment of Fistulas.

SPOKANE, WASH., March 16, 1908.

To the Editor:—In THE JOURNAL, March 14, appears an article by Dr. Emil G. Beck on treatment of fistulous tracts by injections of bismuth paste.

Allow me to draw attention to a possible important modification of this method depending on the discovery of Freund in relation to iodoform. This observer has used a solution of iodoform in chloroform as a test for and measure of the *x*-ray. This is possible on account of the prompt color reaction since the ray has the property of liberating free iodin from the iodoform which, appearing in its natural color in the chloroform, gives the color test for the quantity of *x*-ray.

It is reasonable to suppose that the ray has the same effect no matter in what the iodoform is suspended, and I suggest, therefore, that a suspension of the drug be used instead of the bismuth and that the patient be then subjected to a measured dose of *x*-ray exposure in order to produce free iodin in contact with the diseased tissues and thus aid the reconstruction Dr. Beck finds as a result of his present method.

HENRY POWER.

Sudden Deaths from Choking in Goiter.

ITHACA, N. Y., March 16, 1908.

To the Editor:—An estimate of the frequency of sudden death resulting from choking in goiter would be of value to the practitioner or surgeon who is trying to decide for or against the advisability of operation in any given case. I have knowledge of several such cases, and believe that death from choking is more common than is generally believed. During the past year two women have come to me who have been unable to swallow solid food, the one for seven years, the other for five years. I should be glad to hear of similar cases that have come to the notice of practitioners or surgeons.

MARTIN B. TINKER.

A Method of Nostrum Advertising.

CAVE-IN-ROCK, ILL., March 18, 1908.

To the Editor:—I have noticed for several months past that soon after a fraudulent nostrum is exposed in THE JOURNAL my mail is burdened with the advertisements of the preparation. I wonder if this is not a systematic effort to counteract the effects of exposure. W. J. J. PARIS.

[Undoubtedly.—EDITOR.]

Association News

HOTELS FOR CHICAGO SESSION.

Important that Hotel Accommodations be Reserved Early for the June Meeting.

Members of the American Medical Association and others desirous of securing definite hotel accommodations for the next annual session, at Chicago, June 2 to 5, will facilitate matters by early written communications addressed to Dr. L. L. McArthur, chairman of the Hotels Committee, 100 State Street, Chicago.

Arrangements have been made with all the leading hotels of the city for this meeting. Definite instructions to the chairman, as to the character of rooms desired, with or without bath, meals, etc., and number in party, will permit prompt action and more satisfactory reservation.

No section headquarters at hotels have been assigned. The members are therefore at liberty to select the hotel of their choice. Reservations will be made in the order of their arrival.

Arrangements will be made for rooms at private houses and boarding houses, a list of which will be obtainable at the Bureau of Information and will be published in later issues of THE JOURNAL.

A partial list of hotels, with rates and locations, follows:

AUDITORIUM HOTEL, see Congress.

BRIGGS HOUSE, Randolph Street and Fifth Avenue; 150 rooms; can take 50; rates for one person in room, $1 to $1.50; bath, $2 to $2.50; additional, $1 for each person.

HOTEL BREVOORT, 143 Madison Street; 350 rooms; can take 200; rates, one person, $1.50 and up; two in room, $3 and up.

HOTEL BISMARCK, 178 Randolph Street; 100 rooms; can take 25; rates, one person, $1 up; two persons in room, $1.75 up.

CONGRESS HOTEL COMPANY, Michigan Avenue and Congress Street (operating Congress, Auditorium and Annex); 1,500 rooms; can accommodate 1,400 to 1,600; rate for one person, $2 to $7; two or more persons in room, $3 to $10.

HOTEL DEL PRADO, Midway Boulevard and Jackson Park; 100 rooms; can take 200; rates, American plan, $3 to $4 per day; two or more in room, $5 to $7 per day.

HUNT'S EUROPEAN HOTEL, 146 Dearborn Street; 105 rooms; can take 50; rates, $1 and $2; additional, $0.75 each.

GREAT NORTHERN HOTEL, Jackson Boulevard, Dearborn and Quincy Streets; 375 rooms; can take 300; rates, one person, $1.50 to $4; two persons, $2.50 to $6; additional, $1 each.

KAISERHOF HOTEL, 270 Clark Street; 300 rooms; can take 300; rates, one person, $1 to $1.50; with bath, $2 to $3; additional person in room, $2 to $3; with baths, $3 to $5.

LEXINGTON HOTEL, Michigan Boulevard and Twenty-second Street; 400 rooms; can take 150; rates, one person, $1.50 up; additional persons, $1 and up; rooms with private bath, $2 single; $1.50 double.

LAKOTA HOTEL, Thirtieth Street and Michigan Boulevard; 250 rooms; can take 500; rates, European plan, $3 up; two persons in room, $2 up; American plan, rates on application.

HOTEL MAJESTIC, 20 Quincy Street; 200 rooms; can take 200; rates, one person, $2.50; two persons, $4.

MCCOY'S EUROPEAN HOTEL, northwest corner Clark and Van Buren Streets; 200 rooms; can take 150; rates, one person, $1.50; additional persons in room, $1 up.

OXFORD HOTEL, Canal and Adams Streets; opposite Union Depot; 70 rooms; can take 40; $2 per day, American plan.

PALMER HOUSE, State and Monroe Streets; 700 rooms; can take 500; rates, one person, $1.50 and up without bath; two persons in room, $2 and up; with bath, $2.50 and up one person, and $3.50 and up two persons.

HOTEL METROPOLE, Michigan Ave. and Twenty-third Street; 300 rooms; can take 250; rates, for one person in room, $2 per day and up; for two or more persons in a room, $1.50 and up.

SHERMAN HOUSE, Clark and Randolph Streets; 200 rooms; can take 500; rates, one person, $1.50 up; additional persons, $1.25 each.

SARATOGA EUROPEAN HOTEL, 151 Dearborn Street; 318 rooms; can take 300; rates, one person, $1 up; two persons, $2 up; with baths, $1.50 up; three or more persons in room, special rates.

NEW SOUTHERN HOTEL, Michigan Boulevard and Thirteenth Street; 75 rooms; can take 25; rates, $1 to $1.50 per day; additional persons in room, $1.

STRATFORD HOTEL, Jackson and Michigan Boulevards; 200 rooms; can take 400; rates, $2 to $3 without bath; two in room; $4 with bath.

VICTORIA HOTEL, Michigan Boulevard and Van Buren Street; 200 rooms; can take 300; rates, for one person, $1 and up; two persons, $1.50 and up.

VIRGINIA HOTEL, Rush and Ohio Streets; 400 rooms; can take 250; one person, $1.50 up; two persons in room, $2 per day and up.

WINDERMERE HOTEL, Fifty-sixth Street and Cornell Avenue; 250 rooms; can take 25 to 30; rates, $3 per day and up; two in room, $5 per day and up; American plan only.

WINDSOR-CLIFTON HOTEL, Monroe Street and Wabash Avenue; 165 rooms; can take 200; rates, one person, $1 per day and up; additional, same.

WELLINGTON HOTEL, Wabash Avenue and Jackson Boulevard; 150 rooms; can take 150; rates, for one person, $2 per day and up; two persons, $3 and up; with bath one person, $3 and up; with bath, two persons, $5 and up; with bath, three persons, $7.50 and up; with bath, four persons, $8.50 and up.

A list of the meeting places of the various sections appeared in THE JOURNAL last week.

Miscellany

Injurious Action of Sulphurous Acid.

The experiments conducted by the Bureau of Chemistry of the Department of Agriculture (Bulletin No. 57), under the direction of Dr. H. W. Wiley, on the effect of sulphites as food preservatives, are of peculiar interest, not only as showing the effect of these substances when used as preservatives, but also as indicating that their use, medicinally, for a long time, may be injurious by their action on the kidneys. Some proprietaries contain thiosulphates, which in the stomach give rise to sulphuretted hydrogen, a substance which would probably have a similar if not more injurious effect than the sulphur dioxid contained in the food preservatives studied. The action of mineral waters containing sulphur may also be liable to produce somewhat similar results. At any rate, the results obtained by the experimental ingestion of small quantities of sulphites is an interesting example of the possible effects of quantities of substances ordinarily considered negligible. The experiments were carefully conducted on healthy men, who volunteered to take a certain amount of sulphites or sulphur dioxid with their food. They were placed under observation for a period in which no preservative was taken, and then took with their food the preservative in capsules or as a drink for a definite period, after which they were kept under observation for some time longer to determine the after-effects of the

administration. The first period lasted ten days, the second twenty and the last ten, being forty days in all. The amount of sulphur dioxid ingested during the entire preservative period varied from 4 to 11 gm. (60 to 165 grains), and averaged from 0.223 to 0.564 gm. (3½ to 8½ grains) a day.

The most prominent symptom observed was headache, which could hardly have been imaginary. This symptom was commonly and persistently experienced at some time during the preservative period. The effect on body weight was inconsiderable. A larger quantity of dry matter was excreted in the feces under the administration of the preservative, showing a tendency to decrease to this extent the absorption of food from the intestinal canal. The examination of the urine showed that sodium sulphite tends to act as a diuretic, to increase the acidity and to produce albuminuria. Mucous cylindroids were found, but no casts. Urea and nitrogen in general were decreased, but there was an increase in the amount of kreatinin. This shows that the preservative exerted a marked influence in deranging metabolic functions. Examination of the blood showed a tendency to the production of an anemia of the secondary type. The leucocytes were also decreased in number.

As the report says: "The administration of sodium sulphite and sulphurous acid produces a marked influence of an unfavorable character on metabolism. As a result of this action, an assimilation of food materials containing organic phosphorus is retarded, while there is evidence of increased sulphur metabolism. The sulphur balance sheets show what an immense burden has been added to the already overworked kidneys, which are called on to remove nearly all, if not quite all, the added sulphur from the body, previously converted, in great part, to sulphuric acid. It is not possible that placing on the kidneys this increased work of excreting sulphur can result in anything but injury. . . ." "It is reasonable to suppose that the continued use of a body which produces such results would cause lesions of a histologic character that eventually would develop conditions which would give serious apprehension. . . . It is therefore evident that by increasing the burden on the excretory organs, the administration of sulphur in the form mentioned is highly detrimental to health. . . ." "The conclusion, therefore, is inevitable that as a whole the changes produced in metabolic activity by the administration of sulphur in the forms noted above in the comparatively short time covered by the experiments are decidedly injurious. The verdict which must be pronounced in this case is decidedly unfavorable to the use of this preservative in any quantity or for any period of time, and shows the desirability of avoiding the addition of any form of sulphurous acid to products intended for human food."

Medical Esperanto.—A note was published in THE JOURNAL, Feb. 1, 1908, page 391, concerning a proposed International Esperanto League for Physicians, and announcing the projected publication, if sufficient promises of support should be forthcoming, of a medical periodical in Esperanto, to be called the *International Correspondence of Physicians*, at a cost of 25 cents a number. We have received from Dr. Mikolajski a letter (in Esperanto) in which he states that, in consequence of our announcement, he is in daily receipt of letters from American physicians desirous of subscribing to the proposed periodical and expressing approval. He states, however, that the response to his appeal, while not yet adequate to warrant the expense of an entirely independent publication, is so far encouraging that it has induced him to undertake the publication monthly in Esperanto of a supplement, entitled *Vocho de Kuracistoj*—the *Voice of Physicians*—to the *Glos Lekarzy*, a Polish medico-ethico-social journal published in Lwow, Austrio-Galicia, of which he is editor. He asks us to inform our readers that this Esperanto supplement will be sent gratuitously to any American physician requesting it who will collaborate by sending at brief intervals correspondence in Esperanto on matters of professional interest to physicians of all countries. For choice, subjects which concern professional relations, medical ethics and medical economics are to be preferred, but there is no desire to obtrude a special program. The first issue of this Esperanto supplement, dated March, 1908, now before us, contains a brief foreword outlining the origin and scope of the project for an international medical journal, with a commendatory letter from Dr. Zamenhof, the inventor of the language; an appeal for the adoption of Esperanto as a fifth official language at International Medical Congresses, by Dr. Wizel of Warsaw; an article on "The Utility of Esperanto in Medical Congresses," by Dr. Skalkowski of Lwow; an account by Dr. Fels of Lwow of the services rendered him by Esperanto during a vacation trip to Prague, Marienbad, Karlsbad, Dresden and Berlin, and other matter. It concludes with an announcement that in the April number will begin the publication of the correspondence, forwarded from all parts in response to Dr. Mikolajski's appeal, on the question of the medical secret, and also an article on "Esperanto and the Red Cross Societies," by Dr. Ahinte, *"chefa militkuracisto"* of the French army. Dr. Mikolajski's address is Sniadeckich 6, Lwow, Austrio-Galicia.

Chamberlen's Pills—An Old-Time Proprietary.—At a meeting of the Edinburgh Pharmaceutical Society in January, Mr. S. K. Stewart (*Pharmaceutical Journal*, Jan. 25, 1908), gave the history of "Dr. Chamberlen's Pills," a proprietary remedy said to have been invented by Dr. Hugh Chamberlen, physician to Charles II, and to have continued to have a vogue well into the nineteenth century. The secret was communicated by Dr. Chamberlen to John Davies, a surgeon, together with Chamberlen's seal. From Davies it passed through the hands of his daughter, Anne Davies, to her husband, John Tailour; thence to their daughter, Margaret Tailour, from whom it passed to her nephew (John Tailour's grandson), George Telfer. Telfer's daughter, Miss Margaret Telfer, an old lady recently dead, gave the prescription with other relics, to her medical attendant, Dr. Cumming, through whose courtesy they were exhibited by Mr. Stewart. Among these heirlooms were two invoices of the component drugs in bulk, supplied by Corbyn, Stacey & Messer, London, to Margaret Tailour and Fred. Tailour, and dated respectively June 17, 1796, and Oct. 16, 1799. This prescription, written about the end of the eighteenth century, is as follows:

THE TRUE AND GENUINE RECEIPT OF DR. CHAMBERLEN'S RECEIPT OF HIS PILLS.

TO GEORGE TELFER.

Take three pound of best Barbadoes or Cabolin Aloes (but the Cabolin in preference if it can be had).
One pound of best Scammony of Aleppo.
Half a pound of Socotrin Aloes.
Let all be beaten into a fine powder and put through a search [a fine sieve], mixing the same with as much Aqua Apodemia as will make a proper mass. The pills to be smoothed with oil of cloves.
MARGT. TAILOUR.

You will see my father made only ounces at first, but it is quite the same in proportion. He made the pounds long before he died, just as above, but never quite with his handwriting (*sic*), and makes no alteration whatever in the receipt. That was your worthy grandfather's charge to me to be pointed to the receipt and always the very best materials that can be procured. God bless you.
MARGT. TAILOUR.

Stewart comments: "The word 'cabolin' is doubtless meant for 'caballin,' a coarse, rank-smelling variety of aloes called horse aloes. The word 'caballin' means 'fit for a horse.' The words 'aqua apodemia' doubtless mean 'hot water,' apodemia being a corruption of the word 'apozeme,' a decoction."

Present State of Radiotherapy.—Mewborn, in a review of recent literature on radiotherapy (*Journal of Cutaneous Diseases*, February, 1908), offers the following summary of the present state of the method: The Roentgen ray as a therapeutic measure seems to have well established itself, and to occupy a larger field at the close of the year than at the beginning. The literature of the year, while extensive, is on the whole of a very conservative and credible type. The unreasonable statements and unbelievable reports of early years (though really comparatively few in number) have practically disappeared, and Roentgen therapy is being handled in a scientific manner. Radiography and radiotherapy are more and more every year tending to become a specialty, and must, from the nature of the work itself, be such. An agent, the effects of which on the tissues are so definite and so powerful, and the ill-effects of which, when improperly applied, are so irremediable, must of necessity be used only by those who thoroughly understand it. Proper use of the Roentgen ray, based

on a knowledge of the pathologic condition it is desired to affect and on a knowledge of the physiologic action of the ray on normal and abnormal tissues, will be followed by uniformly successful outcome. The three greatest needs in this branch of medical science are: First, a convenient and uncumbersome method of protecting the patient; second, a convenient and uncumbersome method of protecting the operator, and third, a convenient and uncumbersome method of measuring the dosage in standard units.

An Ancient Remedy for Smallpox.—The *Lancet* publishes the following seventeenth century remedy for smallpox: Among the papers of the Earl of Ancaster preserved at Grimsthorpe and just reported on by the Historical Manuscripts Commission is a letter addressed in 1648 by "Monsieur J. G." to John Pridgeon, bear-leader to the young Lord Willoughby of that day, inclosing directions for preparing and taking certain physic, a number of recipes for purges and cooling drinks, and what is described as "the Countesse of Holdernesse's receipt for the smallpox:" "If the partie should have the smallpox, which you may guesse by his heavines, burninge and coughe, lette him lie warme in his bed but moderately, keeping his throate pretty coole, givinge him burnt wine with saffron till you see there will no more come forth. Take fresh butter, a quarter of a pound, and melt it on the fire, as much refined searved (?) through tiffeny or lawne, and beate it with a spoone till it come to be so thicke as Pomato; then take a fine feather (when it is melted) and dip it in (being luke warme) and annoynt his face and handes twenty times a day & night, nott sufferinge the party to scratch himselfe nor rubb them too hard against his pillow or anythinge else, nor to clippe them or the like, keepinge the places still annoynted till you see them shill off, alwayes being extreame carefull to keepe him in a temperate heate, but rather warme than cold, by all meanes, for if he should take cold it would endanger his life; now if he should have them in his eyes or throate, take a little brest milke, a little saffron, and a little white sugar-candy, melt them together in a saucer, and lett him swallow a little of this att a time, being warme, for his throate when you see them first appear; then take a feather and dip it in the same and draw it through his eyes lidds, and by the grace of God it will preserve his sight. To take away the holes in the face: Take the quan.ity of a pound of veale and putt it in some corner in a seller where it may best putrifie and breede maggotts; then take those maggotts, beinge well growne, put them on a wire and rost them before the fire, havinge somethinge to preserve the drippinges of them, which you must take and annoynt the party's pitts in his face, and it will take away the holes therein. Given by an Italian."

Differential Diagnosis Between Cysticercus and Tumor of the Fourth Ventricle.—T. Grainger Stewart, in the *Proc. Royal Society of Medicine*, January, 1908, states: "The chief points of distinction between the symptomatology of cysticercus and tumor of the fourth ventricle are as follows: In cases of cysticercus: (a) The long duration of many of the cases without definite signs; (b) the sudden onset of the attacks of headache, vomiting and giddiness; (c) the association of these attacks with sudden movements of the head; (d) the long intermissions with complete freedom from all symptoms; (e) the more frequent occurrence of glycosuria; (f) the late onset of optic neuritis; (g) the frequency of sudden death. These differences may be explained by reference to the morbid anatomy of the two conditions. In cysticercus the cysts grow into the fourth ventricle, and therefore only affect the cerebellum and pons indirectly. They are often loosely attached to the ventricular walls, or may even hang free in the ventricular cavity, so that in some positions of the head they merely lie in the ventricle and do not block it, but any sudden movement of the head is liable to shift their position, and so cause temporary partial or complete obstruction of the intraventricular system with sudden onset of symptoms. Cysts are less likely to give rise to optic neuritis in the earlier stages, as they do not obstruct the ventricle until they have attained a considerable size. In tumors of the fourth ventricle the growth tends gradually to fill the ventricle, to grow upward toward the Sylvian aqueduct and downward into the lateral recesses and the posterior cistern. Tumors are also more likely to infiltrate the cerebellum, pons and medulla, and as growth is slow and progressive so are the symptoms, save when there is hemorrhage into the tumor. Optic neuritis will occur when the growth has attained sufficient size to raise the intracranial pressure. This may be early or late, depending on the seat and size of the growth. In growths of the cerebellum invading the fourth ventricle, cerebellar symptoms are early phenomena, while, on the other hand, they are of late occurrence when a tumor of the ventricle extends secondarily into this organ. The differential diagnosis of tumor in the fourth ventricle and cerebellar and pontine tumor must be made by the absence of definite pontine and cerebellar symptoms in cases which exhibit slight hypertonicity and ataxia, and from the presence of bilateral nystagmus and weakness of conjugate lateral movement of the eyes. The diagnosis of intraventricular growth will be further strengthened by the presence of sugar in the urine.

Supports of the Pelvic Viscera.—Dr. W. E. Fothergill, in the *Proc. Royal Society of Medicine*, January, 1908, states that: 1. The so-called ligaments of the uterus lie loosely on the subjacent structures, and have no supporting action. The broad ligament is simply a mesovarium and mesosalpinx. The uterosacral and uterovesical folds are incapable of resisting downward pressure, as is the round ligament, which, moreover, is a vestigial structure (*gubernaculum ovarii et uteri*). 2. The external muscular layer of the pelvic floor has a sphincteric rather than a supporting action. 3. The internal muscular layer of the pelvic floor being the degenerated representative of the tail muscles of lower animals, has largely lost its muscular action; and the lower part of the levator ani merely acts as an adjuvant to the sphincters of the rectum and the sphincter vaginæ. 4. The classical descriptions of the pelvic fascia should be given up, and the fascia should be regarded as the sheaths of the muscles, the vessels and the viscera. 5. The internal muscular layer, with its fascial investment, forms the funnel-shaped pelvic diaphragm. 6. The pelvic diaphragm does not support the pelvic organs by its muscular action. 7. The pelvic diaphragm could not support the pelvic organs in virtue of its shape, were they not firmly attached to its sloping lateral walls. 8. This attachment is accomplished by the fibrous sheaths of the blood vessels and accompanying structures which supply the pelvic viscera. The one constant essential factor in the causation of prolapse is relaxation of the perivascular sheaths. 9. The rectum has attachments to the back of the pelvis quite distinct from those of the urogenital organs to its sides. It does not descend with them in prolapsus. When the anterior rectal wall descends in rectocele it is united with the posterior vaginal wall by cicatricial tissue, the result of infection during the healing of perineal tears.

Malaria in India.—The prevalence of malaria in the Province of Bengal a year ago was the cause of a special committee being appointed to investigate the matter, and this committee has just made its report. In addition to the water-logged condition of the country, the main causes of malaria, the committee claims, are the insanitary sites of the villages. Any improvement in this direction depends on educating the villagers, and this will be a slow process. The report states that the value of sanitation and the prophylactic value of quinin and mosquito curtains might well be taught in the schools. The distribution of quinin may be easily effected, but mosquito extermination is almost an impossibility in a low-lying country with water almost everywhere. A certain amount of improvement may be effected by drainage, but the nature of the country puts many limitations on this procedure.

The Morphin Habit in Burma.—In a letter to the *Lancet* the superintendent of excise at Rangoon, writing on the prevalence of the morphin habit in that city, states that the present belief is that individuals who habitually practice hypodermic injections to excess live for only a few years. With his assistant he visited an opium den in June, 1900, and took the names and addresses of the 30 persons present. On making inquiries in March, 1907, it was verified that all those 30 persons

were dead. Five had died from plague and the others from various causes. This is probably an extreme instance, but it is evident that the habit is physically degrading as it is morally. The government of Burma has now ordered a leaflet describing the fatal effects of the drug printed and circulated in quarters where the morphin habit is known to hold sway.

A Lay Opinion of the Roentgen Rays.—According to the newspaper reports, an American physician lately returned from abroad, tells the following story illustrating the vague idea some people still have of the nature of the Roentgen rays and the method of application: "A man wrote to a specialist: 'I have had a bullet in my thorax for eleven years. I am too busy to come to Berlin, but hope you will come down here with your rays, as my case should be worth your while. If you can not come, send a packet of rays, with instructions as to use, and I will see if I can not manage to work them myself.' The specialist replied: 'I am sorry that my engagements prevent my coming to see you and that I am out of rays just now. If you can not come to Berlin yourself, send me your thorax by express and I will do the best I can with it.'"

Plague in Great Britain.—Consul Austen of Glasgow reports on information received from the Glasgow health officer that two cases of plague were discovered in that city in August and October, 1907, respectively. The first patient, a girl, was employed in a rag store; the second patient, a boy, had a sister who worked in the same place. The last previous cases of plague in human beings occurred in 1901; up to October, 1907, the last known cases of plague-infected rats were found in 1902. In October and November, 1907, numbers of rats were found dead or dying from plague in a police station and the stables of an adjoining bakery, about a mile west of the area where the human cases developed. Two tenements in this neighborhood had been recently pulled down, displacing many rats.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

LEGAL RESTRAINT OF INEBRIATES.

CINCINNATI, OHIO, Feb. 27, 1908.

To the Editor:—1. Can you tell me of any state in which inebriates, as such, can be kept under legal restraint, the commitment being voluntary or otherwise?

2. Can you give me the same information on other countries than the United States? PHILIP ZENNER.

ANSWER.—1. The laws relating to the commitment and restraint of inebriates in different states are all modifications of the lunacy laws. They are substantially this: The inebriate is tried before a judge, and sometimes a jury, in which the question of his present condition due to spirits or drugs is the subject of inquiry. It is decided whether or not he shall be restrained legally in some institution, and whether or not his property shall be taken from his hands. In Massachusetts and Iowa there are distinct institutions for the care and control of these persons. These institutions are under the direct control of the state, and receive persons who are committed by the lower courts. In New York, the institutions are local and annexes of hospitals and insane asylums, the commitments to which are from police and probate courts. Insane asylums of all the states receive inebriates as insane, and many of the larger institutions have distinct wards where a large number of these persons are kept. The restraint must necessarily be limited, as every patient has a right to appeal, by a writ, for a discharge. Private hospitals and sanatoriums have little or no power legally to restrain patients, but in Connecticut all institutions organized under the laws of the state have full power to hold and restrain patients. In 1874 Connecticut passed a law for the control of these persons. The section on voluntary commitments has attracted much attention and has been sustained by legal rulings.

This law provides that whenever any person shall have become an habitual drunkard, a dipsomaniac, or so far addicted to the intemperate use of narcotics or stimulants as to have lost the power of self-control, the court of probate for the district in which such person resides, or has a legal domicile, shall, on application of a majority of the town authorities, or of any relative of such person, make due inquiry, and if the charges are sustained, the individual is sent to some inebriate asylum within the state, for treatment, care and custody, for a term not less than four months, and not more than twelve months. In the case of dipsomaniacs, commitment is for a period of three years. The certificate of at least two respectable practicing physicians, after a personal examination, is necessary for commitment.

Any person committed as a dipsomaniac to an inebriate asylum in this state, may, after one year of treatment, be permitted to go at large on probation and without custody or restraint, temporarily, or for such time as the managers of the asylum shall judge to be for the best interests of the patient. Any inebriate or dipsomaniac may voluntarily make application to be received into such asylum, and he may be retained for a period of not less than four months, nor more than twelve months.

2. In England inebriates are committed under a special act, called the Habitual Drunkards Act. The period varies from one to two years. The government gives cities, boroughs, and private corporations power to build institutions and to receive such persons. The form of commitment is a trial before a jury. Patients may commit themselves by voluntary request, and by signing certain papers, but this is not considered binding. In France and Germany inebriates are committed under the lunacy laws. In England the number of institutions has increased to such an extent that a government inspector, a medical man, has been appointed, and all asylums who receive aid from the towns and cities must be licensed and inspected. All other institutions have no recognition and are voluntary.

LITERATURE ON TUBERCULOUS MENINGITIS.

PHILADELPHIA, March 16, 1908.

To the Editor:—Please send me a list of indexed articles on the recent contributions to literature on tuberculous meningitis.

W. B. COOPERMAN, M.D.

ANSWER.—The following articles are contained in THE JOURNAL indices for 1906 and 1907:

Lamb, D. S.: Tuberculous Meningitis in an Adult, *Wash. Med. Ann.*, January, 1906.

Brown, W. H. W.: Therapeutic Effects of Mercury in Tuberculous Meningitis, *Lancet*, March 24, 1906; abstracted in THE JOURNAL, April 21, 1906, p. 1242.

Hall and Hopkins: Tuberculous Meningitis, *Jour. Nerv. and Ment. Dis.*, April, 1906; abstracted in THE JOURNAL, May 5, 1906, p. 1399.

Carriere and Lhote: Prolonged Remissions of Tuberculous Meningitis in the Child, Rev. de méd., xxv, 6; abstracted in THE JOURNAL, June 13, 1906, p. 1732.

Hopkins, S. D.: Tuberculous Meningitis, *Colorado Med.*, July, 1906.

Schlesinger, E.: Lumbar Puncture in Tuberculous Meningitis, *Berl. klin. Wchnschr.*, xliii, 25-26; abstracted in THE JOURNAL, Sept. 20, 1906, p. 1061.

Ovazza, V. E.: Curability of Tuberculous Meningitis, *Riforma med.*, xxii, 34; abstracted in THE JOURNAL, Nov. 3, 1906, p. 1520.

Riebold, G.: Curability of Tuberculous Meningitis, *Münch. med. Wchnsch.*, liii, 35; abstracted in THE JOURNAL, Nov. 17, 1906, p. 1692.

Summons, W. H.: Early Signs of Tuberculous Meningitis, *Intercolon. Med. Jour. Australasia*, Nov. 20, 1906.

Landois, F.: Chronic Tuberculous Meningo-encephalitis from the Clinical and Forensic Standpoint, *Deutsch. med. Wchnschr.*, xxxiii, 1; abstracted in THE JOURNAL, Feb. 23, 1907, p. 1061.

Koplik, H.: Clinical History and Recognition of Tuberculous Meningitis, THE JOURNAL A. M. A., April 6, 1907, p. 1149.

Gordon, A: Pathogenesis of Reflexes apropos of a Case of Tuberculoma of the Spinal Meninges, *Am. Jour. Med. Sc.*, May, 1907.

Don, A.: Tuberculin in Tuberculous Meningitis, *Brit. Med. Jour.*, June 8, 1907; abstracted in THE JOURNAL, July 6, 1907, p. 90.

Takemura, K.: Differentiation Between Tuberculous Meningitis During Pregnancy, and Uremia or Eclampsia, *Sei-I-Kwai Med. Jour.*, Tokio, Aug. 31, 1907, xxx, 5.

Morse, J. L.: Analysis of Forty Cases of Meningitis in Infancy, THE JOURNAL A. M. A., June 3, 1906, p. 1906.

STATISTICS OF ENDOANEURISMORRHAPHY WANTED.

2255 ST. CHARLES AVENUE, NEW ORLEANS, March 10, 1908.

To the Editor:—I am compiling the statistics of operations for the cure of aneurism by the intrasaccular suture (endoaneurismorrhaphy), and shall be obliged to all surgeons who have had experience with this operation for brief reports of their cases.

RUDOLPH MATAS.

STUDY OF TWINS AND DOUBLES.

Mr. J. L. Tayler, L.R.C.P., M.R.C.S., Eng., 8 Adys Lawn, Willesden Green, London, England, writes that the many replies with which he has been favored to his former communication (THE JOURNAL, Jan. 4, 1908, p. 58), lead him to ask for further assistance in reference to the similarity of diseases in persons *not* brothers or sisters, yet greatly resembling each other. Such resemblances are well known through photographic representations in magazines, press comments and the popular saying that "every person has his double." Mr. Tayler says: "The evidence which I now possess makes it probable that twins suffer similarly from disease, and that constitution is a much more important factor than has of late been assumed, the older medical men being largely justified in their insistence on this. Before, however, giving facts to support such a conclusion, I am anxious to obtain an independent source of study to compare with my researches on twins and the possibility of the similarity of "doubles" has been brought into my mind by a case in my own experience, which was as follows: A colleague of mine and myself both mistook a patient we had not previously seen for an old one suffering from diabetes, so alike were they in appearance, and at our request she brought in a sample of urine to be examined and it was found to be diabetic. The woman herself had at the time no suspicion of this disease, nor had she any noticeable symptoms, and but for the chance likeness to the other patient the disorder might very possibly have been overlooked. If any medical men have had similar experiences I should be glad if they would kindly communicate with me at the address above given."

THE PHYSICIAN'S AUTOMOBILE.

PHILADELPHIA, March 7, 1908.

To the Editor:—I have just finished the remarkable list of papers on the automobile and it has interested me greatly. As a pioneer of nine years, with over fifty thousand motored miles behind me, I congratulate you and THE JOURNAL'S readers on this remarkable collection of experiences. May I express the evolved demand of the day as it impresses me? Briefly, it is as follows: A car of moderate price ($1,000); light weight, say 800 pounds, at most not over 1,100; ample, or twenty-horse power. It must assure a less cost of maintenance than a horse vehicle, while its certainty of operation must be as great. I am glad to see promise of successful supersedure of the small pneumatic-tired bicycle wheels by the larger solid-tired carriage wheels. This accomplished, one of the greatest limitations of the present day auto vanishes. The large, high-powered, gasoline eating, luxurious cars of the present will be discarded to-morrow with other passing fads. As motive power the air-cooled engine seems the logical result, and three years' continuous use has demonstrated its dependability and absolute superiority in every particular. I am also inclined to the belief that steam is going to have another inning. Its superiority over the heavy, high-powered explosive motor on hills and for fast work is evident on the most cursory examination. Find enclosed stamped addressed envelope for the names and corresponding numbers.

DANIEL LONGAKER.

MINNESOTA PASTEUR INSTITUTE.

MINNEAPOLIS, MINN., March 20, 1908.

To the Editor:—In compliance with the request of THE JOURNAL of February 29 for information concerning American Pasteur institutes, we are glad to state that, by the action of the last legislature, the Minnesota State Board of Health was provided with a fund of $5,000 per annum for the prophylactic treatment of rabies. The Institute of Public Health and Pathology, one of the newer buildings on the Campus of the University of Minnesota, houses the Pasteur Institute, the other laboratories of the State Board of Health and the laboratories of pathology and bacteriology of the university. A suite of reception rooms and laboratories is provided for the work in rabies. The treatment lasts twenty-one days. The virus was obtained through the kindness of the University of Michigan and produces recognizable symptoms of rabies in six days, death usually occurring on the seventh day in rabbits of fifteen hundred to two thousand grams.

The institute was opened for patients Aug. 9, 1907, since which time 108 patients have been received for treatment. The history of the biting or infecting animal is obtained and full details are recorded. Where possible, both microscopic examination for Negri bodies and subdural or intracerebral inoculations in rabbits are practiced, in order to establish or exclude the diagnosis of rabies, in the biting or infecting animal.

The work is under the immediate charge of Dr. O. McDaniel and under the general direction of these laboratories. Treatment is afforded gratuitously only to residents of this state. There is no provision for housing patients at the institute, to which, however, they must come daily for treatment. While it is not desirable to undertake the treatment of animals, the board has ruled that in special cases, valuable animals may be treated for the fee charged non-resident patients.

F. F. WESBROOK,
Director of Laboratories, Minnesota State Board of Health.

"WHEN MAY THE GONORRHEIC MARRY."

ATLANTA, GA., March 14, 1908.

To the Editor:—Regarding the question of "When May a Gonorrheic Marry?" the usual methods of searching for the gonococcus may be inhanced by sealing the meatus, several hours after a urethral discharge has been artificially created. The secretion from the prostate and seminal vesicles should then be massaged into the inflamed canal where it should remain three or four hours. The inflamed urethra is a fine medium for the proliferation of the gonococcus. If there be any latent germs present in the secretion from the prostate or seminal vesicles—even in numbers too small to be demonstrable, except, perhaps after a prolonged search through many smears—they will grow rapidly in this favorable environment. They may then be found with comparative ease in smears taken from 6 to 24 hours after the adhesive plaster is removed. The secretion which has been retained in the urethra should be allowed to escape. The presence of enlargement of the prostate or a nodular condition does not necessarily mean infection, as the swelling may persist long after the germs have disappeared; nor is pus in the secretion expressed from the deeper parts necessarily indicative of the presence of gonococci. Because of the difficulty of making cultures from these secretions and because my findings have been so reliable I am convinced that this test is the surest method of finding latent gonococci. I described this plan of procedure in more detail in the last issue of "International Clinics."

EDGAR G. BALLENGER, M.D.

THE OPSONIC INDEX.

COLLINSVILLE, TEXAS, March 13, 1908.

To the Editor:—Please define the term "opsonic index."

E. C. WILLIAMS.

ANSWER.—Opsonic index is a term used to express the relative phagocytic power of the blood. It is found by dividing the average number of bacteria of a given kind which will be taken up by a leucocyte of an individual's blood by the number of bacteria of the same kind, which will be taken up by a leucocyte of the blood of a normal individual. The latter number is found by taking the average of several observations of normal persons. A full account of this subject may be found by referring to the article of Hektoen on "Phagocytosis and Opsonins," THE JOURNAL, May 12, 1906, p. 1407, and that by Potter, Ditman and Bradley, "The Opsonic Index in Medicine," THE JOURNAL, Nov. 24, 1906, p. 1722, and Dec. 1, 1906, p. 1792.

PUBLICATIONS ON MICROSCOPY.

MADISON, MINN., March 17, 1908.

To the Editor:—Is there a journal published devoted to the microscope and kindred topics? If there is, where can it be obtained and at what price?

C. B. POWELL, M.D.

ANSWER.—So far as we are aware, the only publication on microscopy issued in this country is the annual volume of the American Microscopical Society, price $2.00. The secretary of this society is Dr. Fred C. Zapffee, 1764 Lexington Street, Chicago. This society will publish a quarterly magazine in place of the annual volume.

The Public Service

Army Changes.

Memorandum of changes of stations and duties of medical officers, U. S. Army, Week ending March 21, 1908:

Birmingham, H. P., surgeon, having reported in compliance with Paragraph 2, S. O. 54, War Department, March 5, 1908, is announced as chief surgeon, Army of Cuban Pacification, relieving Lieut.-Col. Vlair D. Taylor, deputy surgeon-general.

Shepard, J. L., asst.-surgeon, now on leave of absence, will proceed on or before the expiration of said leave, to Fort Sam Houston, Texas, for duty at that station.

Roberts, W. M., asst.-surgeon, ordered to Fort Hancock, N. J., for duty.

Schreiner, E. R., asst.-surgeon, ordered to report to the commanding officer, Headquarters, Band, 1st and 3d Battalions, 24th Infantry, San Francisco, Cal., for duty, to accompany that command en route to Madison Barracks, N. Y., and on completion of this duty to return to his proper station.

Parkman, W. E., contract surgeon, relieved from duty at Fort Keogh, Mont., and ordered to Fort Missoula, Mont., for duty.

Slater, E. F., contract surgeon, leave of absence extended one month, twenty days.

Wall, F. M., contract surgeon, relieved from temporary duty at Fort Monroe, Va., and ordered to return to his proper station, Fort Oglethorpe, Ga.

Wilson, Elsworth, contract surgeon, left Goldfield, Nev., and arrived at Presidio of Monterey, Cal., for duty.

Navy Changes.

Changes in the Medical Corps, U. S. Navy, for the week ending March 21, 1908:

Ohnesorg, K., surgeon, detached from duty at the Naval Hospital, Philadelphia, and ordered to the Navy Yard, League Island, Pa., for duty in connection with fitting out the *New Hampshire* and for duty on board that vessel when placed in commission.

Plummer, R. W., P. A. surgeon, detached from the Naval Recruiting Station, Chicago, March 30, and ordered to Washington, D. C., April 1, for examination for promotion, and then to wait orders.

Hayward, A. B., asst.-surgeon, detached from duty at the Naval

Medical School, Washington, D. C., and ordered to the Naval Recruiting Station, Chicago.

Rhoades, G. C., Hough, F. W. P., McGuire, L. W., Bacon, S., acting asst.-surgeons, detached from duty at the Naval Medical School, Washington, D. C., and ordered to report to the president of the Naval Examining Board, Washington, D. C., April 1, for examination for appointment as assistant surgeon, and then to wait orders.

Melhorn, K. C., Morgan, C. R., Biello, J. A., Haines, B. F., acting asst.-surgeons, detached from duty at the Naval Medical School, Washington, D. C., and ordered to report to the president of the Naval Medical Examining Board, Washington, D. C., April —, for examination for appointment as assistant surgeons, and then to wait orders.

Williams, R. B., P. A. surgeon, detached from the *Franklin* and ordered to the Naval Hospital, Philadelphia.

Verner, W. W., P. A. surgeon, detached from the Naval Training station, San Francisco, and ordered to duty in connection with fitting out the *Wisconsin*, and to duty on board that vessel when commissioned.

Snyder, J. J., P. A. surgeon, detached from the Naval Hospital, Philadelphia, and ordered to instruction at the Naval Medical School, Washington, D. C.

DeLancy, C. H., P. A. surgeon, detached from the Navy Yard, New York, and ordered to duty in connection with fitting out the *Newark* and to duty on board that vessel when commissioned.

Miller, J. T., asst. surgeon, detached from the Naval Medical School, Washington, D. C., and ordered to the *Franklin*.

Garrison, H. A., asst.-surgeon, detached from the Naval Medical School, Washington, D. C., and ordered to the Naval Hospital, Philadelphia.

Higgins, M. E., Holeman, C. J., asst.-surgeons, detached from the Naval Medical School, Washington, D. C., and ordered to duty at the Naval Training Station, San Francisco.

Public Health and Marine-Hospital Service.

List of changes of station and duties of commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended March 18, 1908:

White, J. H., surgeon, directed to proceed to Puerto Barrios, Guat., for special temporary duty, on completion of which to rejoin station.

White, J. H., surgeon, granted leave of absence for seven days.

Rosenau, M. J., surgeon, detailed to represent the service at meeting of the American Association of Pathologists and Bacteriologists at Ann Arbor, Mich., April 17 and 18, 1908.

Sprague, E. K., P. A. surgeon, leave of absence granted for 10 days from Feb. 11, 1908, revoked, and leave of absence granted for 10 days from March 20, 1908.

Amesse, J. W., P. A. surgeon, granted leave of absence for 10 days from March 19, 1908.

McCoy, G. W., P. A. surgeon, relieved from duty in the Hygienic Laboratory, and directed to proceed to San Francisco, reporting to P. A. Surgeon Blue for special temporary duty.

McCoy, G. W., P. A. surgeon, granted leave of absence for 3 days.

Bahrenburg, L. P. H., P. A. surgeon, granted extension of leave of absence for 14 days from March 15, 1908.

Scofield, R. B., asst.-surgeon, granted leave of absence for 17 days from April 1, 1908.

Stiles, C. W., chief division Zoology, Hygienic Laboratory, detailed to represent the service at annual meeting of the Alabama State Medical Association, Montgomery, Ala., April 21, 1908.

Cleaves, F. H., acting asst.-surgeon, granted leave of absence for 1 day, March 13, 1908, on account of sickness.

Blount, B. B., acting asst.-surgeon, excused from duty without pay for a period of ten days from March 16, 1908.

Brown, S. E., acting asst.-surgeon, granted leave of absence for 14 days from March 15, 1908.

Safford, M. V., acting asst.-surgeon, directed to proceed to Portland, Me., for special temporary duty, rejoining station on completion of same.

APPOINTMENT.

Dr. Eugene W. Hill, appointed an acting asst.-surgeon for duty at Malone, N. Y.

BOARD CONVENED.

A board of medical officers was convened to meet at Seattle, Wash., March 16, 1908, to examine an immigrant reported to be afflicted with trachoma. Detail for the board: P. A. Surgeon, M. W. Glover, chairman; Asst.-Surgeon C. W. Chapin; Acting Asst.-Surgeon F. R. Underwood, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended Jan. 20, 1908:

SMALLPOX—UNITED STATES.

Alabama: Mobile, Feb. 1-8, 6 cases, Feb. 22-29, 5 cases.
California: Los Angeles, Feb. 22-29, 7 cases; San Francisco, Feb. 22-29, 8 cases.
Illinois: Chicago, Feb. 27-March 7, 3 cases; Springfield, Feb. 27-March 5, 7 cases.
Indiana: Elkhart, Feb. 29-March 7, 3 cases; Marion, Feb. 1-29, 14 cases.
Iowa: Cedar Rapids, Feb. 1-29, 5 cases.
Kansas: Kansas City, Feb. 29-March 7, 2 cases; Wichita, Feb. 1-March 7, 57 cases.
Kentucky: Covington, Feb. 29-March 7, 1 case; Lexington, Feb. 22-29, 1 case.
Louisiana: New Orleans, Feb. 29-March 7, 11 cases, 6 imported.
Michigan: Detroit, Feb. 29-March 7, 2 cases.
Minnesota: Winona, Feb. 22-29, 1 case.
Missouri: Kansas City, Feb. 29-March 7, 10 cases.
Montana: Butte, Feb. 25-March 3, 3 cases.
New York: Buffalo: Feb. 22-29, 1 case; New York, Feb. 29-March 7, 1 case.
North Carolina: Charlotte, Feb. 29-March 7, 1 case.
Ohio: Cincinnati, Feb. 28-March 6, 17 cases; Toledo, Feb. 29-March 7, 2 cases.
Oregon: Portland, Feb. 1-15, 3 cases.
Tennessee: Knoxville, Feb. 29-March 7, 1 case; Nashville, Feb. 29-March 7, 4 cases.
Texas: San Antonio, Feb. 22-March 7, 17 cases.
Virginia: Norfolk, Feb. 22-March 18, 2 cases; Richmond, Feb. 29-March 7, 1 case.
Washington: Spokane, Feb. 22-29, 23 cases.
Wisconsin: Milwaukee, Feb. 29-March 7, 2 cases.

SMALLPOX—INSULAR.

Hawaii: Honolulu, Feb. 28, 1 on S. S. *China* from Hongkong.

SMALLPOX—FOREIGN.

Arabia: Aden, Jan. 28-Feb. 11, 33, in quarantine.
Argentina: Rosario, Dec. 1-31, 1 death.
Brazil: Para, Feb. 15, 1 cases, 1 death; Rio de Janeiro, Jan. 25-Feb. 1, 29 cases, 13 deaths.
Canada: Halifax, Feb. 22-March 7, 2 cases; Hamilton, Feb. 1-29, 5 cases; Toronto, Dec. 28-Feb. 29, 21 cases; Winnipeg, Feb. 15-22, 1 case.
China: Amoy (Kulnagsu), Dec. 7-Jan. 4, present; Foochoo, Jan. 11-18, present; Hankow, Jan. 18-25, 1 case; Shanghai, Jan. 18-Feb. 9, 8 cases foreign and 25 deaths native; Hongkong, Jan. 25-Feb. 9, 25 cases, 17 deaths.
Ecuador: Guayaquil, Feb. 1-8, 4 deaths.
Egypt: Cairo, Jan. 28-Feb. 11, 7 cases, 4 deaths.
France: Brest, Feb. 13-28, 2 cases, 1 death; Paris, Feb. 8-22, 39 cases.
Gibraltar: Feb. 16-23, 1 case imported.
Great Britain: Edinburgh, Feb. 8-22, 2 cases; Leith, Feb. 8-22, 4 cases, 1 death.
India: Bombay, Feb. 4-11, 25 deaths; Madras, Feb. 1-7, 1 death.
Italy: General, Feb. 13-20, 37 cases; Naples, Feb. 8-22, 8 cases.
Japan: Kobe, Feb. 1-15, 657 cases, 367 deaths; Nagasaki, Jan. 26-Feb. 16, 5 cases, 2 deaths; Osaka, Feb. 1-8, 126 cases, 37 deaths.
Java: Batavia: Jan. 18-25, 4 cases.
Malta: Jan. 25-Feb. 15, 20 cases, 4 deaths.
Manchuria: Dalny, Jan. 25-Feb. 8, 7 cases, 1 death.
Mexico: Aguas Calientes, Feb. 16-March 1, 6 deaths; Mexico, Jan. 8-Feb. 8, 5 deaths; Monterey, Feb. 16-23, 2 deaths.
Portugal: Lisbon, Feb. 8-25, 3 cases.
Russia: Libau, Feb. 8-15, 6 cases; Moscow, Feb. 1-15, 109 cases, 29 deaths; Odessa, Feb. 1-15, 9 cases; Riga, Feb. 8-22, 3 cases; St. Petersburg, Jan. 11-Feb. 15, 76 cases, 18 deaths.
Spain: Almeira, Jan. 1-31, 20 deaths; Barcelona, Feb. 11-20, 2 deaths; Denia, Feb. 2-14, 6 cases; Malaga, Dec. 1-31, 5 deaths; Valencia, Feb. 8-23, 43 cases, 5 deaths.
Turkey: Bagdad, Jan. 18-Feb. 1, 89 cases, 22 deaths.

YELLOW FEVER.

Barbados: Bridgetown, March 1, 2 deaths.
Brazil: Manaos, Feb. 1-15, 8 deaths; Para, Feb. 8-22, 32 cases, 24 deaths.
Ecuador: Guayaquil, Feb. 1-8, 6 deaths.

CHOLERA.

India: Bombay, Feb. 4-11, 1 death; Madras, Feb. 1-7, 15 deaths; Rangoon, Jan. 25-Feb. 1, 2 deaths.

PLAGUE.

Africa: Accra, March 9, present.
Brazil: Rio de Janeiro, Jan. 25-Feb. 1, 4 cases.
Chile: Antofagasta, Jan. 22-Feb. 5, 7 cases, 1 death.
China: Hongkong, Jan. 26-Feb. 1, 4 cases, 4 deaths.
Egypt: Assiout Province, Feb. 7-11, 10 cases, 7 deaths: Fagoum Province, Feb. 8-13, 5 cases, 2 deaths; Guirgueh Province, Feb. 7-11, 4 cases, 7 deaths.
India: Bombay, Feb. 4-11, 45 deaths; Rangoon, Jan. 25-Feb. 1, 16 deaths.
Japan: Kobe, Feb. 11, 1 case; Osaka, Feb. 1-8, 2 cases, 2 deaths.
Peru: Catacaos, Jan. 30-Feb. 13, 12 cases, 3 deaths; Chosika, Jan. 30-Feb. 13, 1 case, 1 death; Eten, Jan. 30-Feb. 13, 1 case; Lima, Jan. 30-Feb. 13, 12 cases, 9 deaths; Palta, Jan. 30-Feb. 13, 3 cases, 1 death; Piura, Jan. 30-Feb. 13, 1 case, 4 deaths; Santa Eulalia, Jan. 30-Feb. 13, 1 case.
Trujillo, 36 cases, 17 deaths.
Straits Settlements: Singapore, Jan. 18-25, 1 death.

Marriages

JOHN W. HANSHUS, M.D., to Miss Hannah Oberg, both of Chicago, February 18.

JOHN E. TUITE, M.D., to Miss Emma McSweeney, both of Rockford, Ill., March 3.

SIDNEY H. CULVER, M.D., Mason, Mich., to Miss Laura Gwin of Kosciusko, Miss., March 2.

ALBERT BATES JONES, M.D., Providence, R. I., to Miss Lottie Lea Hartnett of Boston, March 15.

WILLIAM CLYDE HOGAN, M.D., Bradford, Pa., to Miss Clara May Shaner of Olean, N. Y., March 11.

WILLIAM LOWTHIAN, M.D., Unionville, Mich., to Miss Mary P. Brookfield of Springfield, Mo., recently.

S. ARCHER MUMFORD, M.D., Philadelphia, to Miss Carolyn Christiana Andreas of Millville, March 10.

ROBERT W. BLUMENTHAL, M.D., Milwaukee, Wis., to Miss Lilian Whitney of Columbus, Wis., March 18.

MYRON DAVIS, JR., M.D., to Miss A. Gertrude Abbott, both of Malden, Mass., at Portsmouth, N. H., March 7.

HENRY C. HOUCK, M.D., Baltimore, Md., to Miss Ella May Thompson of Glencoe, Md., at Ellicott City, Md., Dec. 18, 1907.

Deaths

John C. Cook, M.D. Chicago Medical College, 1880; a member of the American Medical Association, and in 1903 chairman of the Section on Diseases of Children; instructor of diseases of children in Northwestern University School from 1883 to 1884; professor of diseases of children in the Postgraduate Medical School of Chicago; pediatrician to Chicago Hospital; superintendent and chief of staff of the Jackson Park Sanitarium for Sick Children; a director and member of the staff of the South Side Free Dispensary; a pioneer in the crusade against impure milk, and of the establishment of pure milk stations in the small parks; one of the organizers of the Chicago Pediatric Society, and the Chicago Physicians' Club; author of many monographs dealing especially with diseases of children; at one time surgeon of the Illinois Central and Michigan Central railways; died at the Chicago Beach Hotel, March 21, from meningitis, after an illness of several weeks, aged 53.

Robert M. Eames, M.D. Western Reserve University Medical College, Cleveland, 1888; health officer of Seattle, Wash., and for several terms a member of the board of health; representative in the state legislature in 1899; died on the ship *Amaranth*, on which he was taking a trip to South America for his health, Oct. 1, 1907, from articular rheumatism, from which he had suffered for several years, aged 42.

Thomas M. Miller, M.D. Trinity Medical College, Toronto, 1877; L.R.C.P., Edinburgh, 1877; a member of the State Medical Society of Wisconsin and Taylor County Medical Society; physician to the poor for Taylor County; U. S. pension examiner for twelve years; and local surgeon for the Wisconsin Central Railroad for twenty years; died at his home in Medford, Wis., February 1, aged 57.

David Waddy Gardner, M.D. Missouri Medical College, St. Louis, 1876; formerly a member of the American Medical Association; a member of the International Association of Railway Surgeons, and local surgeon at Lehigh, Okla., for the Missouri, Kansas and Texas Railroad; died at All Saints' Hospital, South McAlester, Okla., March 13, from septicemia, due to an operation wound, aged 51.

Anne Augusta Wilson, M.D. University of Brussels, Belgium, 1892; L.R.C.P. and S., Edinburgh, 1892; a member of the American Medical Association; house physician to Clapham (London) Maternity Hospital in 1892; a prominent practitioner of Washington, D. C.; and physician to the Crittenden Home; died at her home in Washington, March 13, after a brief illness.

Alfred Thompson Halsted, M.D. University of Vermont, College of Medicine, Burlington, 1891; honor man of his year; physical director in the Y. M. C. A. gymnasium, Springfield, Mass.; a member of the medical department of the Prudential Life Insurance Co.; died at his home in Newark, N. J., February 23, from pneumonia, after an illness of seven days, aged 45.

Robert Robb, M.D. Keokuk (Iowa) Medical College, 1898; D.V.S., Ontario Veterinary College, Toronto, 1894; a member of the American Medical Association and of the George F. Jenkins Medical Society, Keokuk, Iowa; formerly of Hiteman, Iowa, and later of Newton, Ill., died in Augustana Hospital, Chicago, February 22, from brain tumor (glioma), aged 43.

James B. Devlin, M.D. Rush Medical College, Chicago, 1879; a member of the Colorado State and Denver City and County medical societies; examining physician in Denver for the Denver and Rio Grande Railroad; died at his home, March 14, from pneumonia, after a short illness, aged 55.

John Henry Scarff, M.D. Washington University School of Medicine, Baltimore, 1876; at one time professor of gynecology in Baltimore Medical College; and one of the founders of the Hospital for the Women of Maryland; died at his home in Govanstown, Md., March 11, from nephritis, after an illness of several weeks, aged 57.

John G. Bigham, M.D. New York University Medical College, New York City, 1860; of Millersburg, Ohio; surgeon of the Sixty-eighth Ohio Volunteer Infantry during the Civil War; and for several years a member of the local pension examining board; died at a sanitarium in Millersburg, March 13, aged 72.

Edwin Forest Richardson, M.D. Hospital College of Medicine, Medical Department Central University of Kentucky, Louisville, 1896; a member of the American Medical Association; once a member of the Kansas state legislature; died at his home in Onaga, Kan., March 8, after a short illness, aged 43.

Charles Francis Joseph Kennedy, M.D. University of Pennsylvania, Department of Medicine, Philadelphia, 1891; a member of the American Medical Association; obstetrician to Mercy Hospital, Springfield, Mass.; died in that institution from gastric ulcer, March 11, after a short illness, aged 41.

Harry E. Des Mond, M.D. Northwestern Medical College, St. Joseph, Mo., 1885; a member of the Missouri State Medical Association, Clinton County Medical Society, and Medical Society of the Missouri Valley; was found dead at his home in Plattsburg, Mo., March 10, from heart disease, aged 54.

Fay McVey Vanatta, M.D. College of Physicians and Surgeons, Chicago, 1905; a member of the American Medical Association; surgeon for the Nevada Douglas properties at Yerrington, Nev., died from typhoid fever, in Holy Cross Hospital, Salt Lake City, Utah, Oct. 7, 1907.

Ina Belle Hyde Reed, M.D. Woman's Medical College of Cincinnati, 1894; a member of the Medical Society of Virginia, and Brunswick County Medical Society; died at her home in Zingara, Va., Nov. 22, 1907, from pulmonary tuberculosis, after an illness of about five years.

Bailey James English, M.D. Western Pennsylvania Medical College, Pittsburg, 1903; a member of the Medical Society of the State of Pennsylvania and Fayette County Medical Society, died suddenly from heart disease, at his office in Brownsville, Pa., March 13, aged 29.

William Tibbitts, M.D. Bellevue Hospital Medical College, New York City, 1867; a member of the medical societies of the State of New York and County of Herkimer; supervisor of Danube Township from 1891 to 1896; died at his home in Newville, March 11, aged 70.

William Asbury Horrall (License, Indiana, 1897); an eclectic practitioner of Washington, Ind.; a veteran of the Civil War; for eight years postmaster, died at the home of his daughter in Indianapolis, March 9, from influenza, after an illness of seventeen days, aged 89.

F. W. Schroeder, M.D. University of Göttingen, Germany; of New Bremen, Ohio; who retired from practice about twenty-five years ago, died at the home of his daughter in Mt. Carroll, Ill., February 21, from senile debility, after an illness of two months, aged 86.

Richard A. Browne, M.D. Vanderbilt University Medical Department, Nashville, Tenn., 1885; a member of the Southwest Kentucky Medical Society; died at his home near Hickory Grove, Ky., March 6, after an illness of several months, aged 62.

J. B. George, M.D. University of Georgia, Medical Department, Augusta, 1905; a member of the Medical Association of Georgia and Irwin County Medical Society; died at his home in Ocilla, Ga., March 12, from nephritis, after a prolonged illness.

Frederick F. Ninde, M.D. College of Physicians and Surgeons, Baltimore, 1884; a member of the Medical Society of Virginia and Westmoreland County Medical Society; died at his home in Colonial Beach, Va., March 10, from cerebral hemorrhage.

Martin Luther Spence, M.D. Medical Department of Fort Worth (Texas) University; died at his home in Abilene, Texas, January 7, from typhoid fever complicated by cancer of the stomach, after an illness of sixty-three days, aged 41.

John M. Nickles, M.D. University of Louisville, Medical Department, 1876; president of the Sellersburg (Ind.) School Board; died at his home in Sellersburg, March 12, from cancer of the stomach, after an illness of three years, aged 60.

Arthur J. Varno, M.D. College of Physicians and Surgeons, Baltimore, Md., 1892; formerly a practitioner of New York City; died at the home of his father in Thompsonville, Conn., March 10, after an illness of four months, aged 36.

Dwight Flower, M.D. Albany (N. Y.) Medical College, 1865; a member of the American Medical Association; and for many years a practitioner of Monticello, Wis., died at his country home, near River Falls, Wis., March 15, aged 69.

Roy O. Totten, M.D. Cleveland University of Medicine and Surgery, 1896; fell from a window of his office in Cleveland, while attempting to adjust a sign, and fractured his skull, March 13, and died a few minutes later, aged 39.

Desire Q. Scheppers, M.D. Rush Medical College, Chicago, 1866; of Chicago; for twenty years a member of the staff of St. Joseph's Hospital; died at the Cook County Institution, Dunning, from endocarditis, March 10, aged 59.

Henderson D. Davenport, M.D. Indiana Medical College, Indianapolis, 1872; a veteran of the Civil War and a member of the local school board; died at his home in Sheridan, Ind., March 12, from intestinal paralysis, aged 62.

William Terry, M.D. Pennsylvania Medical College, Gettysburg; assistant surgeon during the Civil War; died at his home in Ansonia, Conn., January 14, from senile debility, after an invalidism of several years, aged 85.

William H. M. Philip, M.D. Rush Medical College, Chicago, 1881; a member of the American Medical Association; and one of the pioneer practitioners of North Dakota; died at his home in Hope, N. D., March 13, aged 55.

Alexander Scott Kirkpatrick, M.D. Pulte Medical College, Cincinnati, 1888; a practitioner for thirty-six years; died at his home in Lincoln, Ill., from senile debility, March 13, after an illness of two years, aged 75.

Charles Dickie Murray, M.D. University of Edinburgh, Scotland, 1889; captain in the Royal Army Medical Corps; and for several years physician to the Victoria Hospital, Halifax, N. S., died recently, aged 43.

F. M. Cannon, M.D. Kentucky School of Medicine, Louisville, 1857; of Oxford, Ky.; died at the home of his daughter in Lawrenceburg, Ky., March 10, from pneumonia, after an illness of ten days, aged 75.

John B. Humes, M.D. Rush Medical College, Chicago, 1867; one of the oldest practitioners of the Minnesota Valley; died at his home in Winnebago, Minn., from angina pectoris, March 9, aged 71.

George Enri Woodward, M.D. University of Vermont, College of Medicine, Burlington, 1865; died at his home in Morrisville, Vt., Nov. 11, 1907, from pneumonia, after an illness of nine days, aged 54.

Rufus F. Craft (Examination, Kansas, 1901); a veteran of the Mexican War; an eclectic practitioner; died suddenly at his home in Blue Rapids, Kan., March 8, from heart disease, aged 77.

Daniel Andrew Cochran, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1895; of Milo, Iowa; died at Mercy Hospital, Des Moines, March 11, from brain tumor, aged 35.

Anak A. Rowland, M.D. University of Louisville (Ky.) Medical Department, 1861; a Confederate veteran; died at his home in Atlanta, Ga., March 10, from nephritis, aged 73.

Erastus Berry, M.D. Detroit (Mich.) College of Medicine, 1871; for more than 50 years a practitioner of Eaton County, Mich.; died at his home in Bellevue, March 10, aged 84.

Edwin D. Warner, M.D. Homeopathic Hospital College, Cleveland, Ohio, 1879; died at his home in Geneva, Ohio, March 16, after an illness of several months, aged 52.

Andrew J. Cook (Examination, Nebraska); a veteran of the Civil War; for many years a practitioner of Council Bluffs, Iowa; died suddenly at his home in Omaha, March 6.

Nicholas J. Barry, M.D. Georgia College of Eclectic Medicine and Surgery, Atlanta, 1893; died at his home in Gainesville, Fla., Nov. 21, 1907, from tuberculosis, aged 43.

Frank B. Bysfield, M.D. Barnes Medical College, St. Louis, 1892; a veteran of the Civil War; died at his home in St. Louis, March 9, after a lingering illness, aged 60.

William J. Hitch, M.D. University of Pennsylvania, Department of Medicine, Philadelphia, 1858; died suddenly at his home in Laurel, Del., March 10, aged 72.

Robert R. Robertson, M.D. Louisville (Ky.) Medical College, 1889; died at his home in Wichita Falls, Texas, March 10, after an illness of four years, aged 43.

John L. Howell, M.D. Medical Department of the Tulane University of Louisiana, New Orleans, 1886; died at his home in Canyon, Texas, March 12, aged 57.

Robert F. Smith, a retired practitioner of Richmond, Va., died Dec. 27, 1907, from cerebral hemorrhage, after an illness of twenty-eight days, aged 61.

Fred Gunsaulus, M.D. Starling Medical College, Columbus, Ohio, 1881; died at his home in Columbus, recently, from septicemia, aged 49.

Henry J. Pool, M.D. Kentucky School of Medicine, Louisville, 1876; of Robard, Ky., was recently struck by an engine and killed, aged 70.

John P. Dullard, M.D. Bellevue Hospital Medical College, New York City, 1876; of Sidney, Neb.; died in Lincoln, Neb., March 14.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

TRUTH'S CAUTIONARY LIST.

List of Fakers of Various Sorts Exposed by a Wide-Awake London Paper.

Truth, of London, has issued its "Cautionary List" for 1903. This list, according to the editor's preface, contains the "various organizations, persons and firms which have incurred unfavorable notice in *Truth*. . . . Compilation is based on the broad ground that the necessity for caution exists in any dealing with the parties mentioned. . . . It can not be too strongly impressed on the public that there is a very large class of newspaper advertisements, postal circulars and personal communications in the shape of letters from strangers which should always be regarded with suspicion."

The contents of this little pamphlet are arranged alphabetically under different heads. Under "Religion and Philanthropy" are catalogued a number of those pseudo-charitable organizations which, in the name of suffering humanity, collect money, most, if not all, of which goes into the pockets of the representatives. There is nothing half-hearted about the methods used by *Truth* in dealing with these frauds, as the following extracts will show:

BROWNE, REV. W., president of the True Hope Society.—An ex-convict and unmitigated rascal who was sentenced in 1895 to seven years' penal servitude for bigamy under peculiarly heartless circumstances. He is a hypocrite of the most obnoxious type.

CHURCH SOCIETY FOR PROMOTING KINDNESS TO ANIMALS.—An unwanted society its *raison d'être* apparently being to provide its "warden," the Rev. F. Lawrence, with a means of subsistence. It is now practically defunct.

ROGERS, REV. J., a mysterious cleric, who was formerly a tout for American "universities" for the sale of their degrees, now offers to prepare candidates for holy orders. Originally agent for sale of the bogus degrees of the notorious "Universitas Nationalis Illinoiensis." Professes to teach by correspondence. [It is certainly cause for pride to know that the reputation of the above-mentioned Illinois "institution" has traveled so far.]

The above extracts are samples of the forty-three entries regarding persons and institutions which are to be regarded with suspicion or carefully investigated.

A considerable number of reports regarding "begging letter writers" follows, after which appear fifty-two reports on "medical quacks." Regarding this class of frauds, *Truth* says: "The number of these is a remarkable tribute to the gullibility of the British public and the almost equally remarkable exhibition of carelessness on the part of proprietors of newspapers and magazines who assist them in predatory frauds. A large proportion of the names on the list are of transatlantic origin, and it is worthy of note that many of these, while debarred under a 'fraud order' from using the mails in the United States, are allowed to practice in this country with perfect immunity from interference." So many of these enterprises are of American origin that we quote at length:

AMERICAN COLLEGE OF SCIENCES, Rochester, New York.—Sells a worthless course of instruction in personal magnetism and hypnotism. Together with the Yabe School, K. Leo Minges, John D. Quackenbos, and Monsieur G. A. Mann, is the enterprise of one F. D. Shoemaker, jeweller, of 59 Page Street, Providence, R. I.

DERK P. YONKERMAN COMPANY, Bouverie Street, London, E. C.—The advertisers of a cure for consumption called Tuberculozyne, which claims to produce its effect by newly discovered salts of copper. Analysis proves the claim to be fictitious, and the methods adopted by the "company" in their advertisements are sufficient to prove these Yankee adventurers quacks of the rankest description.

HAIG, DR. JOHN P., Cincinnati.—An American rascal who professes to possess a Goiter Cure for which he tries to obtain £2, but ultimately reduces the price to 15s.

KIDD, "DR." JAMES WILLIAM, Fort Wayne, Ind., U. S. A., and of 423 Saracen's Buildings, Snow Hill, London.—Advertises profusely all over the world, offering to cure all diseases, and to send a sample of his treatment "free." The remedies appear to be absolute humbug, and are supplied in quantities at extravagant prices, as much as £4 having been obtained from victims in some cases.

LIQUOZONE.—A nostrum very widely advertised by a firm of American quacks, calling themselves the British Liquozone Company, as a cure for all germ diseases. It is nothing more than a weak solution of sulphurous acid, a drug which is likely to prove dangerous if administered by inexperienced hands.

M. A. WINTER COMPANY, Pennsylvania Avenue, Washington.—Offers agencies to people of position to peddle their Nature's Sweet Restorer, a cure-all made up into "highly polished chocolate drops." Obtains the names and addresses of people by the purchase of old letters and postcards.

MANN, G. A., MONSIEUR, Rochester, N. Y.—A quack who declares his ability to cure cancer, consumption, and all sick people given up by the doctor. (See "American College of Science.")

K. LEO MINGES, Rochester, N. Y., and 7 Avenue de l'Opéra, Paris.—The reputed proprietor of a "cartilage treatment," which is guaranteed to add two or three inches to the height. It is undiluted humbug. (See "American College of Science.")

NUTRIOLA COMPANY, CHICAGO, and 2 Cecil House, Charing Cross Road, London, W. C.—The enterprise of a Yankee named Hanson, the "President" of the company. Not content with advertising its ability to cure everything, the company has also advertised purchase of its shares as the shortest way to wealth. Nevertheless, a fraud order has been made against the company by the United States postal authorities, and it is worthy of remark that the president of the company has already been bankrupt in America. The London representative is named Noel.

PIERCE ELECTRIC COMPANY, 11 and 12 Finsbury Square, E. C.—Proprietors of Dr. Pierce's Galvanic Chain Belt, and a magnetic truss. The company hails from San Francisco, and after pretending to diagnose a case by correspondence, offers one of the above appliances as a remedy.

POINTING.—The following ten names are aliases of one A. L. Pointing, trading at Century House, Regent Street, W., and at 8 Blenheim Street, Oxford Street, W. Deals in ordinary quack remedies, mostly lifted with the advertisements and literature distributed in connection with them, from American quacks. "Antidipso" has been shown by the *Lancet* to be a downright swindle, and several of the other remedies are no better. The Grecian School of Physical Culture is a reproduction of a Yankee notion for teaching physical exercises by correspondence. MURRAY CO.—Artificial ear drums. WARD CHEMICAL CO.—"Antidipso" drink cure. CAPILLUS MANUFACTURING CO.—Superfluous hair destroyer. HELEN TEMPLE.—Superfluous hair destroyer. THE MR. T. TEMPLE ASSOCIATION.—The Temple Nerve and Flesh Food. MR. F. H. TEMPLE.—Cure for blushing. ESPANOLA MEDICINE CO.—Female bust improver. FELL FORMULA ASSOCIATION.—"Anti-fat" tablets. MAGIC FOOT DRAFT CO.—Cure for rheumatism. GRECIAN SCHOOL OF PHYSICAL CULTURE.

QUACKENBOS, JOHN D.—A suitably named "professor" of the healing art connected with the precious American College of Science, which see above.

RICHARD, "PROFESSOR."—An itinerant quack of Spanish-American origin, who poses as a "medical electrician." Is well known in all parts of the British Empire, in most of which he has got into trouble of one kind or another. He obtains his victims by means of public lectures, and is a dangerous scoundrel of a most disreputable type. Was brought to justice at Staffordshire Assizes in July, 1906, and sentenced to twelve months' hard labor.

VIAVI COMPANY, BRITISH, Regent Street, W.—A quack establishment of American origin, dealing in remedies for female ailments. Engages women, who go about the country pretending to possess medical knowledge, delivering "health lectures," which they have mostly learned by heart, and persuading deluded women that they are in serious danger unless they take the Viavi remedies, and submit themselves to the treatment of the Viavi agents. Is also busy in South Africa, where the Viavi Company agent was fined £400 last year for defrauding the Customs.

Quackery and charlatanism in England seem to be about as general as they are in the United States. Readers of THE JOURNAL will find a number of familiar names in the above list.

It will certainly cause the cheek of the American reader to glow with honest pride to know that so many a "university" or "institution of science" has emanated from the brains of our ingenious countrymen. Tuberculozyne, Liquozone, Magic Foot Draft (for particulars, see religious papers), Nutriola and Viavi also originated in this country and probably were able to establish themselves in London on the profits obtained from the American public.

Under the several headings, such as "Betting Agents and Others," "Various Gambling Systems," "Professional Agitators" and "Trick Advertisers," etc., the various fraudulent enterprises and confidence games to which the public is exposed are entered.

Under the heading, "Miscellaneous Practitioners," occur a number of entries of interest to physicians. We give below a few examples:

GRIFFITHS, DR. A. B., 171 Brixton Road, London.—Gives analysts' certificates to quack remedies for a fee of one guinea. Has a long string of foreign "honors" and American "degrees" attached to his name and was at one time "president" of the egregious Society of Science, Letters and Art.

INTERNATIONAL INSTITUTE OF PHYSIOLOGY AND HYGIENE, 11 Queen Victoria Street, London, E. C.—Dr. J. Grant Stephen, Director of Laboratories, offers certificates of analysis on payment of a fee of one guinea for registration of the record.

SHARPE, GRANVILLE H., F.C.S., 11 Grace Tower Street, London, E. C.—A so-called analyst who makes a business of supplying tradesmen with certificates of the purity and genuineness of the goods they manufacture, for use as trade advertisements.

The above extracts will explain the ease with which "certificates of analysis" and "endorsement by prominent chemists" are frequently obtained.

Such a publication as "*Truth's* Cautionary List" is of great value, affording the best remedy obtainable for those frauds, viz., publicity. A similar publication in this country would be equally valuable and, we fear, more voluminous.

"No Knowledge of Medicine Necessary."

A correspondent in Cananea, Sonora, Mexico, has sent us a clipping from the *Cananea Herald*, which, as he remarks, is rather amusing for its frankness. Our correspondent says that Dr. Valenzuela is "immigration health officer for the Mexican government and is a sample of their ethical notions."

> WANTED—An industrious and sober man with small capital to join advertiser in the practice of medicine in Cananea, Mexico; no knowledge of medicine necessary. Address or call on Dr. M. R. Valenzuela, Naco, Sonora.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES.

DR. JOHN H. BLACKBURN, DIRECTOR.
BOWLING GREEN, KENTUCKY.

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

NOTE: Attention is called to the fact that during the next six months the elaborated outline provides for only four weekly meetings each month, whereas the second and fifth months, which were arranged according to the calendar, consisted of five weekly meetings. On account of this change, each society following the course from THE JOURNAL will find, in arranging its program, that two months will have five weeks, thus allowing an extra meeting. It is suggested that societies use these meetings to discuss tuberculosis, sanitation and other topics of general interest, to which meetings the public should be invited. They could also be used for joint meetings with the local pharmaceutical, dental or bar associations, at which subjects of common interest could be considered. Complete reports of such meetings, with programs and suggestions, will be helpful to other societies.

Seventh Month.

NORMAL AND PATHOLOGIC PREGNANCY.

First Weekly Meeting.

Embryology.
Multiple Pregnancy.
Antenatal Pathology.

Second Weekly Meeting.

Changes in Uterus and Appendages During Pregnancy.
Changes in Other Organs and Structures During Pregnancy.
Diagnosis of Pregnancy.

Third Weekly Meeting.

Diseases Due to Pregnancy.
Toxemia.—Emesis.
Eclampsia.
Medical Diseases Complicating Pregnancy.
Surgical and Gynecologic Affections Complicating Pregnancy.

Fourth Weekly Meeting.

Abortion.
Extrauterine Pregnancy.

Monthly Meeting.

Differential Diagnosis of Pregnancy.
Management of Pregnancy.

FIRST WEEKLY MEETING.

Embryology.

Ova: Origin, development; primordial ova, number, distribution and growth; Graafian follicle, formation, cells, discus, fluid; rupture of follicles, ovulation. Structure of ova. Maturation, formation of female pronucleus, relation of polar bodies to embryomas. Unfecundated ova.

Spermatozoa: Number, nuclei, movements, male pronucleus.

Fertilization: Segmentation nucleus, location.

Segmentation: Morula, vesicle, germ layers, trophoblast.

Migration: Sites, duration, forces.

Implantation: Time, action of trophoblast, primitive villi, maternal blood sinuses.

Decidua: Vera, serotina and reflexa.

Chorion: Formation, villi, syncytium. Frondosum and leve.
Amnion: Sac. Liquor amnii.
Allantois. Yolk sac. Cord. Placenta.
Embryo: Development to sixth week.
Fetus: Appearance and growth of organs, size, length.

Multiple Pregnancy.

Origin, arrangement of membranes and placenta, diagnosis, termination.

Antenatal Pathology.

Decidua: Acute infections, hyperplasia endometrii, hydrorrhea gravidarum.
Chorion: Hydatid mole, changes in villi, syncytium, stroma, vessels. Symptoms and treatment. Chorioepithelioma.
Placenta: Abnormalities in shape, size and weight. Adherent placenta. Placental infection, syphilis, infarcts. Calcareous degeneration.
Amnion: Hydramnios; causes, symptoms, diagnos's, treatment. Oligohydramnios. Amniotic bands.
Cord: Velamentous insertion, stenosis, abnormal length.
Embryo: Malformations and monstrosities of germinal and embryonic periods. Nutritional and infectious diseases. Traumatism of embryo and fetus.

Society Proceedings

COMING MEETINGS.

Medical Association of District of Columbia, Washington, April 2.
Mississippi State Medical Association, Natchez, April 14.
Tennessee State Medical Association, Knoxville, April 14.
Florida Medical Association, Ocala, April 15.
Medical Association of Georgia, Fitzgerald, April 15.
South Carolina Medical Association, Anderson, April 16.
American Assn. of Pathologists and Bacteriologists, Ann Arbor, Mich., April 17 and 18.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON SURGERY.

Regular Meeting, held March 6, 1908.

DR. CHARLES H. PECK in the Chair.

Treatment of Popliteal Aneurism by the Reconstructive Method.

DR. J. F. BINNIE, Kansas City, Mo., confined his remarks to a consideration of the possibility of obliterating the aneurism, and, at the same time, reconstructing the artery in such a fashion that the circulation through it may be restored. Dr. Binnie has used Matas' operation in two cases. In the first he did not recognize at the time that he was doing a reconstructive operation. He closed the single small opening into the sac and then obliterated the sac. In both cases the result as regards cure of the aneurism was good, but in neither could it be proved that the circulation was re-established through the vessel. In a third case, the operative technic differed from Carrel's, in that freshly cut arterial wall was not approximated, but two endothelial lined surfaces were brought together, as in Durrance's method of arteriorrhaphy by eversion. The artery, as a whole, was very seriously diseased. The result of the operation was a failure, but a failure which came near being a success. The closure persisted for two weeks, and then only about one-third of the line of union gave way. This failure encourages one to hope that under more favorable circumstances success may be confidently expected, and that, perhaps, in some cases of sacculated aneurism of the abdominal aorta, it may be possible to open the aneurism sac, close the opening in the aorta, support the line of suture by obliterating the sac by means of sutures and so make the weakest point in a weak aorta as strong as the rest of the vessel.

Personal Experience with the Modern Method of Treating Aneurism.

DR. ROBERT ABBE reviewed briefly the different methods of treating aneurisms employed during the past thirty years. He first employed Matas' method in 1905, in a popliteal aneurism of considerable size. A perfect cure followed without the slightest peril to the circulation of the foot. Two things impressed him as especially gratifying. He left the work with no anxiety that he might have cut off a single superfluous drop of blood, as he might have done had he tied the femoral artery. And he felt that no recurrent anastomosis by the lower open mouth vessel which he sutured could continue dissecting. The method was tried in a second case, a man, 24 years old, who had right sciatic neuralgia for three months, disability in walking, swelling of the right foot, etc. Examination revealed a spherical, pulsating tumor, three inches in diameter, beneath the gluteus muscle, at the sciatic notch. The sciatic nerve had been caught and pressed against the bone causing this neuralgia. This was a particularly good case of operation by the plastic method, because ligation of the external iliac, while it would temporarily arrest the current, would allow free anastomosis and possible return, meanwhile leaving the distended sac to continue sciatic pressure. An immediate recovery followed the operation, and there has been no recurrence of the tumor or sciatic pain. This was a brilliant illustration of the reliance to be placed on the plastic union of opposing walls of an artery, held in contact and irritated by the needle puncture and thread. Dr. Abbe said that if a suitable case of aortic aneurism in the abdomen presented itself, he thought it would be justifiable to combine this valuable method with the one illustrated by him in 1894. He then showed the effect of introducing sterile glass tubes, of sizes suitable to the artery, into the lumen of divided vessels, and tying the arterial wall over each end of the tube, the latter being filled with salt solution, just before letting the current resume its course through it. He saw no reason why an aortic aneurism below the superior mesentery might not be so treated. The current being arrested by strong pressure against the vertebræ, the sac might be split, a tube inserted and tied in at either end, and a suture of the aneurismal wall made tightly about the tube. It is probable that solid closure of the whole track would take place in a week, and occlusion of the aorta above and below would be effected by endarteritis from the presence of the tube. Meanwhile, free anastomosis would surely be established in the lower limbs.

A Case of Popliteal Aneurism Presenting Unusual Difficulties to the Application of the Matas Operation.

DR. JOSEPH A. BLAKE found that the communication between the artery and the sac was about one inch long, and was situated less than one-half an inch to the outer side of the incision in the sac, the artery, therefore, lying on the superficial aspect of the sac. This rendered the introduction of any sutures exceedingly difficult. The proximal communication with the aneurism was closed, while the continuity of the vessel below that point was restored. It was a question whether a typical restorative or reconstructive operation was indicated for popliteal aneurism, since the constant flexing of the joint subjected the vessel to much traumatism. On theoretical grounds, the former was better. The only relapses that have been reported from the Matas operation have followed reconstructive operations on popliteal aneurisms. These operations are, of course, only feasible in saccular aneurisms. Even in these, it seemed to him that the obliterative operation was more conservative, for conditions demanding the preservation of the continuity of the vessel must be rare indeed. The possibility of thrombi becoming detached and causing emboli must be borne in mind, although this accident did not seem to have happened other than after the obliterative operation. In this instance, gangrene followed an obliterative operation on a femoral aneurism, an embolus lodging at the bifurcation of the vessel. There seemed to be a general impression, based on a faulty conception of the principles of the Matas operation, that its main purpose is the conservation of the continuity of the vessel, while it in reality is the least important feature of the technic.

The Serous Coat of Blood Vessels Compared with the Peritoneum.

DR. ROBERT T. MORRIS said that the serous coats of blood vessels act very much like the peritoneum. They adhere

promptly when brought into close apposition; they pour out plastic lymph, which quickly becomes replaced by connective tissue, and covered by new endothelium, just as the same process occurs in peritoneal reparative processes. It is the quick response of the serous coats that makes successful suturing of blood vessels possible; and septic processes of these coats act very much like septic processes of the peritoneum. From a practical standpoint, endothelial proliferation is quite as important in carrying on repair in blood vessels as it is in the peritoneum. Silver wire and other substances introduced into the cavity of an aneurism probably act precisely as they would in the peritoneal cavity, by causing an exudation of coagulable lymph from a serous coat, leading to adherence of the endothelial walls. Manual pressure on the walls of ar aneurism probably does the same thing, and the coagula which occur probably begin as lymph coagula, formed in response to irritation of the serous surfaces.

DISCUSSION.

DR. ROBERT F. WEIR believes that all operations for the cure of aneurisms, including the Matas, are full of errors, and that the Matas operation is not likely to hold a place against the ligature method. However, it might be used with benefit in aneurisms at the root of the neck.

DR. JOHN A. WYETH said that aneurism of a single artery is one of the gravest surgical lesions, and its gravity is in proportion to the nearness of the tumor to the heart. Those aneurisms situated in one of the double arteries of the extremities require no special consideration. Situated on the brachial, the femoral or popliteal, the brilliant procedure of Matas, applied in reconstruction, might be entertained seriously. Reconstructive arteriorrhaphy may find its place in dealing with axillary, or with subclavio-axillary aneurisms when only the third part of the subclavian is involved. He reported the case of right subclavio-axillary aneurism, in a right-handed baseball pitcher, which was cured by compression, persistently and judiciously employed, together with absolute quiet in bed, combined with compression, nutritious diet, restriction of fluids, and medicines as indicated. In right subclavian aneurism, it is better to treat by distal deligation of the right carotid artery as a primary operation, to be followed by distal deligation of the subclavian in its third division, and later, if necessary, by excision of the inner half of the clavicle. The ligature of the right carotid not only aids coagulation by throwing the retarded current back on the innominate, but guards against the accident of embolism. Aneurism of the innominate artery should be treated in the same manner. What has been said of the right subclavian would apply to that on the left side, leaving off the ligature of the primitive carotid of that side. When possible, aneurism of the carotid artery should be treated by deligation on both sides of the tumor, the distal ligature being tightened first to prevent the possibility of the clot being carried to the brain. Aneurism of the primitive carotid near the innominate or near the arch of the aorta must of necessity be treated by distal ligature. Aneurisms of the internal carotid Dr. Wyeth has treated successfully by tying the common trunk at the bifurcation, and the external carotid at the same point, thus insuring stagnation between the ligature and the circle of Willis. In three successful instances he applied the ligature at the crotch of bifurcation in aneurisms of the external carotid, the catgut including in its grasp the origin of the superior thyroid, which practically comes from the common trunk. In aneurisms of the ascending segment of the aortic arch he had tied, simultaneously, the right carotid and the right subclavian, with the result of solidification in a large spherical aneurism over three inches in diameter. The patient died a year later of another disease, and the autopsy demonstrated the success of the operation. In another instance, a similar operation was done on the left side on account of a large aneurism of the transverse segment, with a fatal issue. A very interesting case of aneurism of the ascending segment of the aorta which had whetted through the ribs and presented a large dome-shaped tumor, seemingly covered only by a thin skin of the chest wall, and in which death seemed imminent from rupture, he treated by introducing 25 or 30 silver pins, about two inches long, which were stuck full length into the tumor as one would stick pins into a pin cushion. They were left in place for about thirty-six hours, were removed and a week later were reintroduced. Peripheral solidification followed the first procedure, and gradually the tumor was reduced in size and the man went back to his work as a carriage painter. About a year later he fell dead while at work, presumably from cerebral embolism.

Dr. Wyeth said that if he was leaning over-much toward the side of conservatism, it was because he had learned this lesson in an early and quite extensive experience, and in a careful analysis of all of the cases of aneurism which have been reported. He had already reported a synopsis of 22 cases of subclavian aneurism in which no treatment whatever was undertaken, with 18 deaths and 4 spontaneous cures. Of the 4 cured patients, 3 remained well and 1 died four years later from a rupture of an aortic aneurism. Of the 18 fatal cases, in which no treatment was undertaken, 3 patients died of other diseases than the aneurism. Of 13 cases in which the duration of life was noted, after the recognition of the aneurism, the sum total was 47 years and 9 months. He compared this with the sum of life in 13 cases after the deligation of the innominate, which was eight months, a difference in favor of non-interference (in an equal number of cases), at that time of about 47 years of life. He also reported 14 cases treated by rest in bed, nutritious diet, restricted fluids and judicious medication; 7 patients were cured, 2 were improved and 5 died. Of 6 cases treated by direct pressure on the sac, 4 patients were cured and 1 patient died.

DR. B. FARQUHAR CURTIS thought there was danger of trying to do experimental work without having much regard for the cure of the patient. The majority of popliteal aneurisms, he said, can be cured safely and simply by ligation of the superficial femoral artery. If recourse was to be had to a more extensive operation, he believes in extirpating the sac. He has extirpated the sac three times in popliteal aneurisms, once in aneurism in the axillary space, and once when the aneurism involved the femoral artery. The reconstructive method, however, he thought to be worthy of trial in certain cases.

DR. ARPAD G. GERSTER said that since this reconstructive method was still *sub judice*, it is best not to employ it, except in cases where the method is strictly indicated. He advised against its indiscriminate use. Twenty-five years ago aneurisms were met with quite frequently; to-day he rarely sees one, especially at the Mt. Sinai Hospital. He has seen but one case during the past five years at this hospital. He attributed this to the fact that they cared for Hebrews; due to early marriages and to the rite of circumcision, which toughens the glans penis, syphilitic infection is less commonly met with. Then, again, this race is employed in trades and occupations which do not require much physical exertion. This probably explains why so few aneurisms are met with in this race. Dr. Gerster has treated two cases of thoracic aneurism by the introduction of piano wire, and both patients died, not in consequence of, but in spite of the operation. One patient survived three months, the other six.

CHICAGO MEDICAL SOCIETY.

Meeting, held Feb. 12, 1908.

The President, DR. H. B. FAVILL, in the Chair.

SYMPOSIUM ON ARTERIOSCLEROSIS.

Etiology of Arteriosclerosis.

DR. ALFRED C. CROFTAN said that underlying most cases of arteriosclerosis there must be a predisposition, or there may be a deep-seated metabolic perversion of undefined origin. The experimental method of determining the specific causes of arteriosclerosis so far has produced scanty results and none of the reports in regard to experimental arteriosclerosis is free from ambiguity. Metabolic disorders, notably diabetes, gout,

obesity and autotoxemias, very frequently are associated with arteriosclerosis. That functional inadequacy of important disintoxicating and eliminating organs can cause flooding of the blood and tissue juices with abnormal products is clear; that many of the latter can raise blood pressure as well as cause arterial inflammation is established. Here, undoubtedly, must be sought the most common and incidentally the most apparent and the most readily demonstrable cause of arteriosclerosis; and it is here that the experimental method promises to furnish the most fruitful results.

Experimental Arteriosclerosis.

DR. JOSEPH L. MILLER said that arterial changes have been produced by the intravenous injection of nicotine, barium chlorid, physostigmin, digalen, potassium iodid, and with tobacco, lead and alcohol introduced into the stomach. The changes produced experimentally are confined primarily to the media, a rapid degeneration of the muscle cells, with deposit of lime salts, differing from the usual form of arteriosclerosis in man, where the intima is involved, but resembling the changes found in the peripheral arteries of the aged and of the coronary and peripheral vessels of man, following acute infections.

The etiology of these experimental changes has not yet been determined. That high pressure is not essential is shown by the readiness with which changes occur after alcohol. Apparently, the toxic element is an important, if not the only, cause. Attempts have been made to prevent these changes by combined injections of iodids and adrenalin, but without success, as it has been shown that animals thus treated are more subject to change than those receiving adrenalin alone.

Cardiac and Renal Considerations.

DR. ARTHUR R. ELLIOTT pointed out that blood pressure observations have thrown much light on the clinical conception of arteriosclerosis, principally by showing that the arterial changes may be disseminated very irregularly, and that, unless they involve the small arterioles or the great arterial trunks, they may not disturb blood pressure or cause cardiac hypertrophy. The blood pressure and condition of the heart should be ascertained carefully in every case. The existence of cardiac hypertrophy depends on the presence of hypertension and the condition of the coronary arteries. If coronary sclerosis is present, the heart may not hypertrophy, but an all-round myocardial degeneration results instead. Angina pectoris, aortic sclerosis, aneurism, pulmonary sclerosis, with emphysema and chronic bronchial catarrh, and Adams-Stokes' disease, were referred to as centric developments in arterial disease. Heart failure is a frequent occurrence among patients with sclerotic hearts, and the sclerotic heart of an individual past middle life is distinguished by the ease with which its rhythm is disturbed by reflex causes. The nervous heart of people beyond middle life is usually the seat of chronic myocarditis of arteriosclerotic origin.

DR. ELLIOTT claimed that most of the cases diagnosed as chronic interstitial nephritis in men beyond middle life were not Bright's disease at all, but arteriosclerotic renal atrophy, a much milder and more gradual process, with much better prognosis. Non-inflammatory ischemic atrophy of the kidney is met with in certain cases of arterial disease. It is difficult of recognition, owing to its uncertain symptomatology.

Arteriosclerosis of Nervous System.

DR. HUGH T. PATRICK said that advanced arteriosclerosis may exist in the central nervous system when accessible arteries show little or no change. Marked arteriosclerosis may be found in other parts of the body and the vessels of the brain and cord be very good. Pronounced sclerosis of brain and cord arteries sometimes produces no symptoms at all. Supposing that neither thrombosis nor hemorrhage has occurred, there is not a single symptom of arteriosclerosis of the nervous system which may not be caused by conditions other than vascular disease. In very many instances in which arteriosclerosis of brain or cord or both does cause symptoms, other pathologic conditions contribute to the total symptom-complex presented by the patient. The most unequivocal symptoms of arteriosclerosis are due not directly to the change in the vessel walls, but to injuries of nervous tissue by thrombosis and hemorrhage. Of these, thrombosis is the more frequent. Indeed, a large part of the symptomatology of arteriosclerosis of the central nervous system is due to repeated or multiple thromboses, or occlusions, of small arteries. Next to vascular occlusion, probably the most frequent cause of symptoms induced by arteriosclerosis is sudden or rapid change in the blood current; and next to this, impairment of nutrition from diminished blood supply.

Examination of the radial artery is of the least importance; the brachial is better. The dorsalis pedis and posterior tibial (combined) are much more significant, and in many cases the carotids are the most indicative. Simultaneous compression of both carotids, in the arteriosclerotic, induces faintness, giddiness, blurring of vision, scotomata, tinnitus, localized paresthesia, obscuration of consciousness and even graver symptoms. Indeed, it is to be used with greater circumspection.

Prominent among the symptoms of cerebral arteriosclerosis are brief or transient seizures of various kinds, and of these, attacks of dizziness are probably the most frequent. Ordinarily they are not very severe, but they do attain a degree equal to the most violent Ménière's disease so that the patient drops helpless to the ground. Other seizures are fainting attacks, transient aphasia, blurring of vision or tinnitus. Still others are apoplectoid. Closely allied to these transient attacks must be the epilepsy of arteriosclerosis. This epilepsy like any epilepsy, may present the features of the grand mal, the petit mal or the Jacksonian type. Arteriosclerosis alone does not cause epilepsy. There must be an added element in the way of cortical instability, neurotic predisposition, toxemia or other influence which plays the rôle of predisposing or exciting cause. Coexisting nephritis, myocarditis, constipation or sluggish elimination often has much to do with symptoms attributed to arteriosclerosis.

Arteriosclerosis of the spinal cord may be divided into the sudden or rapid and the slowly progressive. A very large proportion of what currently passes for acute myelitis is not inflammation at all, but myelomalacia, acute softening from vascular occlusion. The chronic cases are more frequent and present several types. One may have intermittent claudication from spinal disease as well as from sclerosis of the arteries of the lower extremities, as described by Charcot. Then, there is the sensory type, in which the patient complains of paresthesia, numbness, pain in the legs and in which very considerable ataxia may appear. The most frequent form is the more purely motor in which the legs gradually lose strength, generally with some rigidity or at least a feeling of stiffness.

Ophthalmic Findings in Arteriosclerosis.

DR. GEORGE F. SUKER said that it is requisite to differentiate the fundus lesions due to an angiosclerosis with a subsequent nephritic element from the lesions due to interstitial or parenchymatous nephritis with a secondary arteriosclerosis. The former are not nearly as often accomplished by inflammatory changes as the latter; in fact, the lesions are mainly due to nutritive disturbance, hence are essentially and primarily atrophic, while the latter often manifest acute or subacute inflammatory changes, which are subsequently followed by atrophic changes. The so-called primary arteriosclerotic changes are obviously chronic in nature, and are not of as serious a prognostic import as the ones following vessel changes dependent on a primary kidney lesion.

The arteriosclerotic process is not always uniform in extent or intensity; usually the peripheral vessels are the first to show the evidences. The eye symptoms vary considerably, depending on whether the anterior or posterior ocular vessels are principally involved. In the involvement of the former we have lens involvement or secretory disturbances, while with the latter, retinal, chorioidal or optic nerve implications. The hemorrhages into the conjunctiva are much more serious and denote a more widespread angiosclerosis than the retinal ones.

A very early and significant fundus appearance is the com-

pression of a vein by a crossing artery, because of the sclerosis. In this instance there is an ampulliform dilatation of the vein on one side. There always is, also, an increase in the light streak on the vessel, with a distinct narrowing of the vessel caliber. Glaucoma, cataract, chronic chorioidal, retinal or vitreous degenerations may result from an arteriosclerosis. The peripheral retinal vessels are frequently the very first terminal vessels to show definite arteriosclerotic changes.

General Symptomatology.

DR. ROBERT H. BABCOCK said that the character and severity of the symptoms must be determined by the location, extent and degree of the sclerotic changes. He divided cases of arteriosclerosis into two main groups or types—the lean and the corpulent. In the former, the diffuse changes are most frequently encountered. The accessible arteries, particularly those of the extremities, may feel hard and wiry, or like a string of minute beads, with consequently inadequate circulation in the areas they supply. The heart may or may not show appreciable hypertrophy, and yet derangement of the various organic functions may be surprisingly inconspicuous.

The symptoms referable directly to the heart are often remarkably few and slight in proportion to the disclosures of clinical and pathologic examinations. The pulse may be somewhat accelerated, entirely regular or disturbed in rhythm, and systolic blood pressure may fall within normal limits. In short, the clinical picture is comprised of the objective findings rather than of the subjective symptoms. There is one fact, however, which should be kept in mind, and that is the enfeebled resistance to what seem, at first sight, to be trivial ailments displayed by individuals with stiff arteries.

In the fat and flabby type the sclerotic changes are not so pronounced in the peripheral vessels, and unless sought for may be overlooked by the physician. General nutrition is not so seriously impaired. The whole arterial system is more or less invaded by the degenerative change, but the dominant features of the clinical picture pertain to one or more of the vital organs. In general, it may be said, that the aorta and its primary branches bear the brunt of the diseased process. As a rule, the abdomen is well developed. The sclerosis is most pronounced in the mesenteric arteries, or those arteries supplied by the splanchnic nerve.

Many of these persons never die directly of the effects of the arteriosclerosis, but of pneumonia or some other infection to which their vascular changes predispose them, and which they are unable to resist; or, as is not seldom, of some chronic infection, which may be responsible for their arteriosclerosis.

Treatment.

DR. G. W. HALL said that the blood should be kept in as nearly a normal condition as possible in order to preserve the nutrition of the walls and prevent loss of elasticity. Avoid excessive or violent muscular efforts. Massage deeply to the muscles, with passive movements with slight resistance on the part of the patient. Avoid high altitudes. Do not vary the daily methods of life. Avoid sudden changes of temperature. Watch the elimination. Baths are of service, such as those of Nauheim, or warm baths or hot air baths.

Medicinal measures consist in promoting metabolism and decreasing arterial pressure. But few preparations are of value in this connection. Potassium iodid, in daily doses of .65 to 1.5 gm., except in specific cases, when the dose should be larger, is useful, and the nitrites and nitroglycerin to relieve symptoms of spasmodic nature. Iron is of value, especially when the kidneys are involved. Basham's mixture is then recommended. A combination of iron and arsenic may be taken after meals. The iodids may be given for a certain number of weeks and stopped for a time, during which period the nitrites are of value. Thyroid extract must be carefully watched if given. Digitalis is indicated only in case of cardiac insufficiency, and then alternating with small doses of nitroglycerin. Strophanthus may be substituted for digitalis. The diet should be simple, consisting of proteids in small amounts, vegetables, milk, carbohydrates. Minimize the amount of tea, coffee, alcohol and tobacco.

Medical Education and State Boards of Registration

COMING EXAMINATIONS.

RHODE ISLAND State Board of Health, Room 313, State House, Providence, April 2-3. Secretary, Dr. Gardner T. Swarts, Providence.

GEORGIA Eclectic Board of Medical Examiners, Atlanta, April 4. Secretary, Dr. Charles H. Field, 235 Capitol Ave., Atlanta.

ARIZONA Board of Medical Examiners, Phoenix, April 6-7. Secretary, Dr Ancil Martin, Phoenix.

UTAH State Board of Medical Examiners, Salt Lake City, April 6-7. Secretary, Dr. R. W. Fisher, Salt Lake City.

COLORADO State Board of Medical Examiners, Denver, April 7. Secretary, Dr. S. D. VanMeter, 1723 Tremont Place, Denver.

MINNESOTA State Board of Medical Examiners, St. Paul, April 7. Secretary Dr. W. S. Fullerton, 214 American National Bank Building, St. Paul.

CALIFORNIA State Board of Medical Examiners, San Francisco, April 7. Secretary, Dr. Charles L. Tisdale, 1879 Sutter St., San Francisco.

IDAHO State Board of Medical Examiners, Cœur d'Alene, April 7. Secretary, Dr. W. F. Howard, Pocatello.

MONTANA State Board of Medical Examiners, the Capitol, Helena, April 7. Secretary, Dr. W. C. Riddell, Helena.

NORTH DAKOTA State Board of Medical Examiners, Grand Forks, April 7-9. Secretary, Dr. H. M. Wheeler, Grand Forks.

FLORIDA Regular Board of Medical Examiners, Ocala, April 13-14. Secretary, Dr. J. D. Fernandez, Jacksonville

NEW MEXICO Board of Health and Medical Examiners, Santa Fe, April 13-14. Secretary Dr. J. A. Massie, Santa Fe.

ARKANSAS Homeopathic Board of Medical Examiners, Little Rock, April 14. Secretary, Dr. V. H. Haliman, Hot Springs.

ARKANSAS Eclectic Board of Medical Examiners, Little Rock, April 14. Secretary, Dr. A. J. Widener, Little Rock.

ARKANSAS Regular Board of Medical Examiners, Little Rock, April 14. Secretary, Dr. F. T. Murphy, Brinkley.

DISTRICT OF COLUMBIA Board of Medical Supervisors, Washington, April 14-17. Secretary, Dr. George C. Ober, 210 B. St. S.-E., Washington.

WEST VIRGINIA State Board of Health, Parkersburg, April 14-16. Secretary, Dr. H. A. Barbee, Point Pleasant.

ILLINOIS State Board of Health, Northwestern University Building, Chicago, April 15-17. Secretary, Dr. J. A. Egan, Springfield.

Higher Requirements at Three More Colleges.

Dr. Samuel W. Lambert, dean of the College of Physicians and Surgeons, the Medical Department of Columbia University, informs us that the faculty has raised the entrance requirements, beginning September, 1909, to two full years of study in an approved college or scientific school, which course must have included instruction in physics, chemistry and biology.

Dr. J. N. Simpson, dean of the College of Medicine of West Virginia University, informs us that beginning with the session of 1909, in addition to fifteen units of secondary work, one year of collegiate work, including courses in physics, chemistry, biology and modern languages will be required for admission.

Dr. W. Henry Wilson, registrar, announces that on or before Jan. 1, 1910, the Hahnemann Medical College of Chicago will require for admission an additional year in physics, chemistry, biology and modern languages.

This makes 27 medical colleges which by 1910 will be requiring two or more years and 60 colleges which will be requiring one or more years of work in a liberal arts college for admission to the study of medicine.

California December Report.

Dr. Charles L. Tisdale, secretary of the California Board of Medical Examiners, reports the written examination held at Los Angeles, Dec. 3-5, 1907. The number of subjects examined in was 10; total number of questions asked, 100; percentage required to pass, 75. Applicant must not fall below 60 in any one branch. The total number of candidates examined was 75, of whom 31 passed and 44 failed. The following colleges were represented:

College.	PASSED. Year. Grad.	Per Cent.
University of Southern California (1905) 77.7; (1906) 75.8, 82.2; (1907) 76.8, 77.1, 78.9, 81.1.		
Cooper Med. Coll. (1906) 80.2; (1907) 76.5, 78.4, 80.2,		84.1
College of P. and S., San Francisco	(1907)	80
University of California	(1907) 77.4,	86.3
Colorado School of Med	(1907)	78.3
Rush Med. Coll	(1907)	86.9
College of P. and S., Keokuk	(1890)	85.8
Harvard Med. School	(1905)	93.7

University of Michigan	(1905)	87.8
Detroit Med. Coll	(1876)	96.9
University of Minnesota	(1901)	87.9
Bellevue Hosp. Med. Coll	(1904) 83.6; (1898)	82.5
University of Pennsylvania	(1906)	76.1
Hahnemann Med. Coll., Philadelphia	(1899)	76.6
Jefferson Med. Coll	(1907)	80.9
University of Toronto, Ontario	(1902)	86.1
Queen's College, Belfast, Ireland	(1904)	77.9
Westminster Hospital College, London	(1900)	78.4
University College, London	(1885)	85.2

FAILED.

University of Southern California	(1904) 60.2; (1906) 67.4, 70.7; (1907) 75.6.	
California Med. Coll., Eclectic	(1906)	63.6
College of P. and S., San Francisco	(1904) 8.1; (1906) 72.9; (1907) 65.6, 77.	
Cooper Med. Coll	(1903) 67.2; (1907)	71.2, 71.7
College of P. and S., Los Angeles	(1907)	77.5
Georgetown University	(1900)	74.7
Northwestern Univ. Med. School	(1904)	71.6
Hahnemann Med. Coll., Chicago	(1901) 64.1; (1905)	52
College of P. and S., Chicago	(1906) 78.2; (1907)	74.1, 80.5
University of Iowa	(1885) 64.8; (1907)	73.8
Kansas Med. Coll	(1892)	46.7
Louisville Med. Coll	(1897)	46.1
University of Louisville	(1905)	66.7
Med. School of Maine	(1895)	85.9
University of Maryland	(1907)	74.1
Harvard Med. School	(1906)	66.4
Tufts Coll. Med. School	(1905)	17.5
University of Missouri	(1897)	74.7
University of Michigan	(1879) 69.3; (1884) 81.2; (1886) 66.4; (1891) 67.9; (1892) 69.1.	
College of P. and S., New York	(1900	71.1
Bellevue Hosp. Med. Coll	(1878) 68.2; (1880)	64.9
Ensworth Med. Coll., St. Joseph	(1898)	61.2
University Med. Coll., Kansas City	(1903)	47.6
New York Homeopathic Med. Coll	(1902)	79.8
Hahnemann Med. Coll., Philadelphia	(1895)	78.2
University of Pennsylvania	(1895)	81.6
Jefferson Med. Coll	(1893)	62.7

New Hampshire January Report.

Mr. H. C. Morrison, regent for the New Hampshire State Board of Medical Examiners, reports the examination at Concord, Jan. 14-15, 1908. The number of subjects examined in was 7; total questions, 70; percentage required, 75. The total number of candidates examined was 16, of whom 12 passed and 4 failed. The following colleges were represented:

PASSED.

College.	Year Grad.	Per Cent.
Georgetown University	(1906)	81
Medical School of Maine	(1905) 78; (1906)	80
University of Maryland	(1886)	75
Harvard Med. School	(1903)	81
Tufts Coll. Med. School	(1906) 86; (1907)	77
Dartmouth Med. School	(1906) 71; (1907)	81
University of Vermont	(1906)	75
McGill University, Montreal	(1903) 81; (1907)	76

FAILED.

Baltimore University	(1903)	55
Baltimore Med. Coll.	(1903)	63
Maryland Med. Coll.	(1905)	63
Laval University, Quebec	(1905)	63

Minnesota January Report.

Dr. W. S. Fullerton, St. Paul, secretary of the Minnesota State Board of Medical Examiners, reports the written examination held at St. Paul, Jan. 2-4, 1908. The number of subjects examined in was 15; percentage required to pass, 75. The total number of candidates examined was 13, of whom 4 passed and 9 failed. Eight reciprocal licenses were issued at this examination. The following colleges were represented:

PASSED.

College	Year of Graduation.	Medicine.	Surgery.	Obstetrics.	Mat. Medica.	Anat. and Hist.	Physiology.	Chem., Urinal., Bac.	Path., Eye and Ear.	Prev. Med. & Med. Juris.	Dis. of Women & Chil.	General Average.
Rush Med. Coll	1907	73	78	75	83	77	78	75	90	76	76	78.1
Chicago Coll. of M. & S.	1907	75	95	76	85	76	75	58	83	76	74	77.3*
Univ. of Mich.	1907	82	71	87	87	80	90	75	85	82	77	81.6
Univ. of Pa.	1903	87	92	82	71	84	77	79	96	86	81	83.5

FAILED.

Georgetown Univ.	1906	79	55	75	76	78	78	70	82	80	73	74.6
Chicago Coll. of M. & S.	1905	59	84	69	62	72	66	52	70	62	74	67. *
Ft. Wayne C. of M.	1905	61	70	79	69	77	75	58	66	76	76	70.7†
Baltimore Med. Coll.	1907	68	90	76	69	74	75	59	72	74	74	73.1*
Hamline Univ.	1906	70	90	66	71	78	75	63	74	73	72	73.2‡
Hamline Univ.	1907	73	64	67	75	52	75	57	81	74	74	69.2*
Univ. of Minn.	1907	75	78	66	75	67	66	68	83	76	71	72.5*
Queen's Univ.	1905	68	79	71	79	81	76	61	78	77	78	74.8
Queen's Univ.	1906	78	83	60	63	76	75	53	68	75	76	70.7*

* Second examination.
† Fifth examination.
‡ Sixth examination.

LICENSED THROUGH RECIPROCITY.

College.	Year Grad.	Reciprocity with.
Rush Med. Coll	(1904)	(1902) Iowa
Chicago Homeo. Med. Coll		(1884) Iowa
Keokuk Med. Coll., Coll. of P. and S.		(1907) Iowa
University of Louisville		(1895) Kentucky
Hospital Coll. of Med., Louisville		(1904) Indiana
Eclectic Med. Inst., Cincinnati		(1881) Ohio
Toledo Med. Coll		(1897) Ohio

The following questions were asked:

ANATOMY AND PHYSIOLOGY.

1. Give the histology of a nerve trunk. 2. Describe the origin, relations and distribution of the fifth pair of cranial nerves. 3. Describe the cardiac valves. Between what points on the surface are they situated? 4. Describe the fourth ventricle. 5. Describe the portal vein. 6. Describe the throracic duct. 7. Describe the azygos veins. 8. Give names and general description of the flexor muscles of the forearm. 9. Describe the pronator muscles. 10. Describe the supinator muscles.

PHYSIOLOGY.

1. Describe the human blood, giving reaction, specific gravity, constituents, etc. 2. Describe the secretion of urine. 3. What is the composition, reaction and function of the pancreatic juice? 4. Describe the pulmonary circulation and the changes which are produced in the blood by aëreation. 5. Describe the secretion of milk, and give the composition of human milk and cow's milk. 6. What are the functions of the skin? 7. Describe the normal heart sounds, give probable reasons for same and tell where best heard. 8. Enumerate the functions of the spinal cord and its special centers. 9. Explain the physiology of visual accommodation to light and distance. 10. Give the physiology of menstruation.

NOTE.—Credits will be given for all diagrams used in explaining questions.

BACTERIOLOGY.

1. In what diseases have the specific micro-organisms been recovered from the blood? 2. (*a*) Give fully the technic of finding the tubercle bacillus in suspected sputum. (*b*) What is Gram and Weigert's method of staining? Illustrate its differential value. 3. Describe the preparation of diphtheria antitoxin. How is its action explained? 4. Describe the morphology of the micro-organisms causing tetanus, gonorrhea, spinal meningitis, relapsing fever. Give mode of infection. 5. (*a*) What is the present status of the bacteriology of scarlet fever, rheumatism and syphilis? (*b*) Give morphology and cultural properties of the *Diplococcus pneumoniæ*.

CHEMISTRY AND URINALYSIS.

1. Define specific gravity; an acid; a base; allotropy; synthesis. 2. (*a*) Give law of definite proportions; (*b*) give tests for iodin, silver, mercury. 3. Give a test for sewage contamination of drinking water. What do you consider a good drinking water? 4. Give fully the clinical significance of albuminuria. Name the urinary casts and the commonly associated kidney lesions. 5. Give a test for indican. What is its clinical significance? 6. What is the diazo-reaction of Ehrlich and its significance? 7. How do you estimate urea? 8. What is the diagnostic value of tests for organic acids found in stomach contents? Describe a test for lactic acid. 9. What is the normal reaction of cow's milk? Why is it important to determine the reaction before sterilization? 10. Give test for blood. What is the freezing point for blood?

PATHOLOGY.

1. Give pathology of anemia, pernicious anemia and chlorosis. 2. Describe changes in chronic alcoholism. 3. Pathology of carcinoma of liver. 4. Give pathologic findings in typhoid fever. 5. Describe pathologic changes in nephritis.

EYE AND EAR.

1. Differentiate glaucoma and iritis. 2. Describe choked disc and in what diseases may we expect to find it. 3. Define myopia, hypermetropia, astigmatism. 4. How would you treat a discharging ear? 5. Describe otitis media.

PRACTICE OF MEDICINE.

1. Describe lichen planus. 2. Describe a typical case of acute miliary tuberculosis. 3. Define bronchiectasis. Give symptoms and physical signs. 4. Nephrolithiasis; give symptoms fully. Differentiate from appendicitis. 5. Describe the usual symptoms in the secondary stage of syphilis. 6. Differentiate in parallel columns, gastric ulcer and gastralgia. 7. Hereditary ataxia (Friedreich's disease); Describe symptoms and usual course of disease. 8. Differentiate articular rheumatism and arthritis deformans. 9. Define arteriosclerosis. Give usual causes. With what other diseases is it frequently associated? 10. Hematuria: Give principal causes. How would you determine source of hemorrhage?

SURGERY.

1. (*a*) Give the surgical definition of "tumor." (*b*) Classify tumors histologically. 2. (*a*) Define "wound." (*b*) Give classification. 3. Give in detail treatment of a punctured wound involving the deep palmar arch. 4. State fully how you would treat a blank cartridge wound of the palm of the hand, and give reason for your plan of treatment. 5. Describe step by step the operation of ligature of the ulnar artery at the wrist, giving linear and muscular guides. 6. (*a*) Define "fracture." (*b*) Give general classification of fractures. 7. Pathology, symptoms and treatment of Pott's fracture.

8. Tracheotomy: Describe operation and after-treatment. 9. How would you reach a diagnosis in a case of suspected coxitis? 10. Describe fully the treatment of strangulated inguinal hernia.

MATERIA MEDICA AND TOXICOLOGY.

1. Write a model prescription for acute bronchitis, giving reasons for use of each ingredient and explaining each step in the writing of the prescription. 2. (a) What are the symptoms of chronic morphin poisoning? (b) What are the symptoms caused by abrupt withdrawal of the drug? (c) What is the treatment of acute poisoning? 3. (a) From what is acetanilid derived? (b) Explain its effects? (c) Give treatment of acute poisoning? 4. (a) From what is hyoscin derived? (b) What is the dose of the hydrobromid? Its physiologic effects? Some of its therapeutic uses? 5. Give rule for dosage for children according to age? 6. Give in parallel columns the diagnosis between acute ptomain poisoning and acute poisoning by arsenic? 7. Explain the action of chloroform as an anesthetic and tell how you would administer it and with what precautions? 8. What are the adult doses of and physiologic antidotes for tincture of strophanthus, apomorphin (by hypodermic), carbolic acid, and chloral hydrate? 9. Explain the action on the bowels of opium, thymol and bismuth subnitrate. 10. (a) What is the U. S. Pharmacopeia? (b) What is the National Formulary? (c) What is a fluid extract? (d) What is a chemical antidote?

MEDICAL JURISPRUDENCE.

1. Describe phenomena and signs of death. 2. How would you distinguish human blood from that of other sources? 3. Describe death by hanging; how would you determine whether penal or suicidal, antemortem or postmortem? 4. What is life insurance and on what does the premium rate depend? 5. What is the normal duration of pregnancy and what are the most important signs of delivery in the living and in the dead?

OBSTETRICS.

1. Describe fully your management of a case of face presentation. 2. Describe your management of a case of neglected transverse presentation where version fails. 3. In contracted and deformed pelvis enumerate the different methods to be considered in delivery of child and state your reasons for each. 4. Describe fully your management of prolapse of cord. 5. Give your treatment of different grades of asphyxia in the new-born. 6. Describe symptoms and treatment of ectopic pregnancy. 7. Describe caput succedaneum and cephalhematoma and give causes of each. 8. Give indications for podalic version. 9. Give your treatment of puerperal septicemia. 10. Give etiology and treatment of mastitis.

PREVENTIVE MEDICINE.

1. What quarantine measures are necessary in a case of (a) smallpox. (b) diphtheria, (c) scarlet fever? 2. Describe in detail how you would manage cases of typhoid for the protection of the community. 3. How are the following diseases transmitted: (a) diphtheria. (b) yellow fever. (c) typhoid fever? 4. How long would you keep in quarantine a case of (a) scarlet fever; (b) diphtheria: (c) smallpox? 5. Give a simple, practical method of ventilating a dwelling in this climate during the winter season.

GYNECOLOGY.

1. Give differential diagnosis between ovarian cyst and extrauterine pregnancy. 2. Describe your method of repairing a lacerated cervix. 3. Describe inversion of the uterus, giving symptoms, diagnosis and treatment. 4. Describe uterine polypus, give symptoms, diagnosis and treatment. 5. (a) Give two indications for hysterectomy. (b) Your reasons for choosing vaginal or abdominal route.

DISEASES OF CHILDREN.

1. Give etiology, pathology and diagnosis of rachitis. 2. Give symptoms of pertussis and differentiate it from acute bronchitis. 3. What alterations would you make in modified milk to overcome constipation? 4. Give briefly differential diagnosis between epilepsy, convulsions due to intestinal irritation and uremic convulsions. 5. Give symptoms and treatment of dilation of the stomach.

Nebraska February Report.

Dr. E. J. C. Sward, secretary of the Nebraska State Board of Health, reports the written examination held at Lincoln, Feb. 5-6, 1908. The number of subjects examined in was 8; total number of questions asked, 80; percentage required to pass, 75. The total number of candidates examined was 9, of whom 4 passed and 5 failed. Fourteen reciprocal licenses were granted at this examination. The following colleges were represented:

PASSED.

College.	Year Grad.	Per Cent.
Yale Medical School	(1907)	87.5
University of Nebraska	(1899)	80.6
College of P. and S., New York	(1906)	80.8
University of Toronto, Canada	(1898)	87.5

FAILED.

College of P. and S., Chicago	(1900)	74.5
Drake University	(1907)	68.1
Barnes Med. Coll	(1906)	70.7
Lincoln Med. Coll	(1907)	72.6
Creighton Med. Coll	(1906)	71

LICENSED THROUGH RECIPROCITY.

College.	Year Grad.	Reciprocity with.
College of P. and S., Chicago (1902) Michigan;	(1906)	Indiana
College of P. and S., Keokuk	(1887)	Iowa
Sioux City Coll. of Med.	(1897)	Iowa
Hospital College of Medicine, Louiville	(1906)	Kentucky
Kentucky School of Med.	(1906)	Indiana
Maryland Med. Coll.	(1902)	Maryland
University of Michigan	(1883)	Illinois
Grand Rapids Med. Coll.	(1900)	Wisconsin
Hamline University	(1903)	Minnesota
Ensworth Central Med. Coll.	(1907)	Kansas
Jefferson Med. Coll.	(1906)	Illinois
McGill University, Canada	(1887)	Iowa
University of Halle, Wittenberg, Germany	(1902)	Iowa

Book Notices

HEART DISEASE AND THORACIC ANEURISM. By F. J. Poynton, M.D., F.R.C.P. (Lond.), Assistant Physician to University College Hospital. Cloth. Pp. 310, with illustrations. Price, $2.00. New York: Oxford University Press, 1907.

In the preface of this excellent work it is stated: "An attempt has been made in this book to describe in outline the most important forms of heart disease, together with the chief methods that are employed in their clinical investigation and treatment. The usual arrangement of the subject has been somewhat departed from, and after the chapters on "Clinical Methods," a description has been given of "Rheumatic Morbus Cordis," with the intention of providing one complete picture of heart disease, rather than sketches of the isolated lesions of pericarditis and endocarditis. In the author's opinion this arrangement facilitates a clearer comprehension of the subject, since it avoids complications and repetitions. Such a method of dealing with acute and chronic endocarditis certainly has advantages in so condensed a work, since without it the extensive subject could scarcely be considered.

There are sixteen chapters and an appendix devoted to the following subjects: Chapter I includes the anatomy and physiology of the heart and experimental cardiac pathology, and repays a careful perusal since it prepares the way for an understanding of what follows in the chapters devoted to the various diseases. The following statement may be quoted since it embodies a truth which can not be brought home too forcibly to the reader and general practitioner. "Fatal dilatation, without pericarditis or endocarditis, and with antemortem thrombosis, may result from experimental infection, thus proving the importance of cardiac dilatation in rheumatic and other forms of heart disease." Chapters II to IV are devoted to the outlines of the clinical methods for investigation of heart disease, and may be passed over without further comment than that they are good. Chapters V to VII deal with the pathology, symptoms, and treatment of rheumatic heart disease. To the reviewer these seem the best in the book. As might be anticipated from the author's well-known investigations as to the etiology of rheumatic fever, Poynton urges in no doubtful terms, yet without unpleasant dogmatism, his belief that the affection is of microbic origin and that the organism concerned is the *Diplococcus rheumaticus*. The reader will profit, even if not convinced, and can scarcely fail to understand the better the pathology and symptomatology of these most serious cardiac disorders. In Chapters VIII and IX the subject of chronic valvular disease and its treatment is considered. This portion of the book is also well handled. Nevertheless rather too much stress is laid on the character of the murmurs in their value as a means of deciding on the gravity of the lesions. Under the heading of "General Management," Poynton wisely insists on the relationship often existing between sore throat and acute rheumatism, and emphasizes the importance of so instructing the parents of a child. Chapter X is devoted to non-rheumatic pericarditis, while acute non-rheumatic endocarditis is discussed in Chapter XI. Myocardial affections are disposed of in Chapters XII and XIII, while in Chapter XIV are found the neuromuscular affections of the heart. This chapter is rather unsatisfactory, and yet perhaps no more so than in other works devoted to cardiopathies, since our understanding of them is still obscure and possibly erroneous. Chapter XV, which is given up to congenital heart disease, is too condensed in some portions to be entirely satisfactory. This, however, is a criticism which might be applied to the work as a whole. Books which give a subject in outline doubtless possess attraction for those readers who, like students, fancy they have no time for more extensive works, but their tendency is to make a practitioner content with but a smattering which never makes a man master of a subject. Chapter XVI deals with arterial disease and aneurism and notwithstanding its limitations as to space is really excellent. The author's belief in the rôle played by toxins in the causation of arteriosclerosis is plainly stated and in this respect is in accord with recent experiments and the trend of modern medical thought. The appendix is made up of prescriptions and by-rules for diet and diet lists. On the whole this little book can be recommended as a safe guide to the student and practitioner.

MEDICAL ETHICS, A Guide to Professional Conduct. By Robert Saundby, M.D., Edin.; Hon. LL.D., M'Gill; Hon. M.Sc., Birm.; Fellow of the Roy. Coll. of Phys. of London, etc. Second Edition, Enlarged and Rewritten. Cloth. Pp. 144. Price, $2.50 net. London: Charles Griffin & Co., Ltd. Philadelphia: J. B. Lippincott Company, 1907.

This is a careful consideration of what might be termed applied ethics as distinguished from the enunciation of general principles found in the formal Principles of Ethics adopted by medical organizations. Few physicians would be inclined to question these general principles; the difficulty, especially to younger practitioners, lies in their application. This difficulty Dr. Saundby has met in an effective and interesting manner, elaborating and commenting on the recognized principles of ethics and illustrating his opinions and rulings with cases drawn from actual experience. In the introduction, he states that there are three principles which may be regarded as the cornerstones of medical ethics. These are: The Golden Rule, which should be observed by a physician in his conduct to his colleagues; the rule for the government of his relations to his patients, that their interests should ever be his highest consideration; and, in his relations to the state, the biblical injunction to render unto Cæsar the things that are Cæsar's, or, in other words, to obey all lawful authority. Dr. Saundby emphasizes the duty which a medical man owes to his profession to increase by his own conduct the public esteem in which it is held, as well as to support all measures for the advancement of the public and profession.

Taking up specific acts of conduct, the vexing question of advertising is first considered at length. The use of alcohol and drugs by physicians; giving of medical certificates; club and contract practice, evidently much commoner in England than in this country; the giving and receiving of commissions; ethics of consultations; expert testimony; suits for malpractice; advice regarding marriage; duties of medical officers of health; the relations of the physician to midwives; "patent medicines" and nostrums; duties to patients and professional secrecy are among the subjects interestingly and exhaustively considered. The regulations of the General Medical Council of Great Britain, relating to the conduct of members of the medical profession, are given in full in the appendix. The lectures of the author on medical ethics, in the University of Birmingham, as well as material gleaned from "hundreds of ethical questions" which are sent him each year to consider, have been utilized in the present work. The arrangement of the subjects is alphabetical for convenience of reference. While conditions in the United States differ considerably from those in Great Britain, yet the greater part of the book is of value to the American physician and all of it is interesting. A book on medical ethics with special reference to professional conditions in America, which will discuss ethical questions in the practical, illuminating way followed by Dr. Saundby, is much needed in this country.

LINNÉPORTRATT, vid Uppsala Universitets Minnesfest på tyåhundraårsdagen af Carl von Linnés Födelse. A. Universitetets vägnar af Tycho Tullberg. Paper. Pp. 189, with 39 illustrations and 21 page plates. Stockholm: Aktiebolaget Ljus, 1907.

LINNÉS DIETETIK. På Grundvalen af dels hans eget originalutkast till föreläsningar: "Lachesis Naturalis Quæ Tradit Diætam Naturalem," och dels lärjungeanteckningar efter dessa hans föreläsningar; "Collegium Diæteticum," på uppdrag af Medicinska Fakulteten i Uppsala. Ordnad och Utgifven af A. O. Lindfors. Paper. Pp. 263. Upsala: Akademiska Boktryckeriet Edv. Berling, 1907.

These two books are contributions, the first one on the part of the University of Upsala and the second on the part of the medical faculty of this university, toward the celebration in May, 1907, of the two hundredth anniversary of the birth of Sweden's greatest scientist, Linnæus. It will be recalled that Linnæus was professor of medicine in the University of Upsala from 1741 to his death in 1778. It would be difficult to conceive of any more fitting and more reverential memorials of the great physician-scientist on this occasion than these two publications. The first volume "Linnéporträtt," contains an authoritative account of the portraits of Linnæus and contains no less than 21 fine plates of reproductions of the more important portraits. The book will be a welcome addition to the library of many collectors. The second volume contains Linnæus' original lecture memoranda on dietetics—*Lachesis naturalis*, etc.—the manuscript, partly in Latin, partly in Swedish, being loaned for the purpose by the Linnæan Society of London, and selected notes made by students at the time the lectures—*collegia diætetica*—were delivered. There are a number of copies of such notes by various persons in the Swedish libraries. The editor, Professor Lindfors, has added numerous explanatory remarks of critical, biographic, bibliographic and historical nature. Linnæus himself never published anything on dietetics, a subject in which he was especially interested and his lectures on which were extremely popular among all classes of students. Linnæus near the end of his life, in the interesting account he gives of his activities, expressed himself as follows in regard to his service to dietetics: "Diet nobody has treated of in a more solid and satisfactory manner though he [meaning himself] did not publish anything on the subject. . . . Everything was deduced from the occurrences in common life, cited in their proper places as examples, on which account his auditors were never more numerous than when he lectured on this subject. Several persons took notes at these lectures, but all of the notes I have seen are incorrect." Professor Lindfors, who has aimed to eliminate from the published notes all manifest errors and misinterpretations, remarks that in this estimation of his services to dietetics Linnæus was well within the limits of truth. The book constitutes a most important addition to the history of dietetics and hygiene and serves most worthily the purpose of calling attention to the great services of Linnæus in this field.

THE PRODUCTION AND HANDLING OF CLEAN MILK. By Kenelm Winslow, M.D., M.D.V., B.A.S. (Harv.), Chairman of the Committee on Milk of the Washington State Medical Association. Cloth. Pp. 207. Price, $2.50. New York: William R. Jenkins Co.

The interest in a pure milk supply aroused by recent investigations has created a demand for a work which shall systematically set forth the reasons for the production of clean milk and the methods by which this purpose can be realized. Such a book has been produced by Dr. Winslow. The author is well fitted by experience for his task, as he is not only a graduate in medicine, but in agricultural science and veterinary medicine. He has also been engaged in laboratory work connected with the examination of the milk supply of a large city. The book is primarily directed to the milk-producer, although the author calls attention to the fact that the chief responsibility for unclean milk lies with the consumer. The essential object in the clean milk crusade should be to awaken the public to the dangers of unclean milk and to the fact that it is impossible to produce and obtain clean milk except at unusual expense.

The preliminary chapters deal with the nature and action of germs, the composition of milk and cream, and with milk products. While these chapters contain little that is new to physicians, they are well adapted to the instruction of those unacquainted with the subject. The methods of feeding, housing and care of the cows; the handling of milk and cream, and the methods of distribution, as well as the methods and requirements of milk inspection, are thoroughly dealt with. The ideal is in many place higher than can be readily attained by the ordinary farmer, but the theoretical explanations and many of the suggestions would enable him greatly to improve the quality of milk and milk products. In an appendix, various facts regarding cows, plans of barns and milk rooms, milking machines, and the method of keeping accounts are discussed.

A TEXT-BOOK OF PHYSIOLOGIC CHEMISTRY. By Olaf Hammarsten, late Professor of Medical and Physiologic Chemistry in the University of Upsala. Authorized Translation from the author's enlarged and revised sixth German edition, by John A. Mandel, Sc.D., Professor of Chemistry in New York University and Bellevue Hospital Medical College. Cloth. Pp. 845. Price, $4.00. New York: John Wiley and Sons, 1908.

As stated by the author, the enormous advances in the domains of physiologic chemistry have made a complete revision of this book necessary. As more and more of the world's chemical investigators enter this field the more valuable becomes the science of physiologic chemistry and the greater becomes the mass of results from these investigators, and in view of these facts the frequent revision of physiologic chemistry texts is now more imperative than in former years.

That the present edition is up to date and contains the latest work is shown by the revision of every chapter, bringing

the book to a form as complete as possible. The discussion of the recent work of such European scientists as Fisher, Arrhenius and Ostwald, and the recent work of such Americans as Chittenden, Loeb, Mathews and Gies shows beyond a question that the book is as complete as it is possible to make it.

The translation follows the German as closely as our English idioms and constructions allow. As in the previous editions, the completeness of this book is in part due to the fact that the subjects are treated from many points of view so as to deal fairly with the various works and theories. This, of course, is hailed by the investigators and students as a great help in their researches. But to the beginner this great mass of seeming contradictions is rather confusing, for he will read a paragraph and learn of a theory which is either completely exploded in the subsequent paragraphs or is left for the reader to accept or not, as he chooses. This one condition makes it rather undesirable as a book for beginners, but with the new authors' index and the vast number of references to the original literature, it is one of the most valuable books on physiologic chemistry in English.

MILK AND ITS RELATION TO THE PUBLIC HEALTH. By various authors. Hygienic Laboratory, U. S. Treasury Department, Public Health and Marine-Hospital Service of the United States, Bulletin No. 41. Paper. Pp. 758. Washington: Government Printing Office, 1908.

This bulletin forms a volume of 758 pages, and is a complete collection of facts regarding the relation of milk to the public health. It grew out of an investigation into the causes of the prevalence of typhoid fever in the District of Columbia. As this investigation indicated that the milk supply was largely responsible, a thorough investigation was made so as to render the results useful to health officers in general, as well as to determine the local conditions in Washington. The work includes the relation of milk to epidemics, to tuberculosis, to Malta fever, milk sickness, animal parasites, and the chemistry and bacteriology of milk. The conditions of the production of milk, sanitary inspection, certified milk, pasteurization, ice-cream, and infant feeding are also dealt with. A special chapter describes the municipal regulations of the milk supply of the District of Columbia. The book contains a mass of information that is probably not accessible in any other single publication, and ought to be of great value to sanitarians, health officers and physicians in general.

PRACTICAL ANESTHETICS. By H. Edmund G. Boyle. M.R.C.S., L.R.C.P., Demonstrator of Anesthetics to St. Bartholomew's Hospital. Cloth. Pp. 178. Price, $2.00. New York: Oxford University Press, 1907.

This book is offered as a short guide for those who have not had the leisure to study more elaborate works or to gain a knowledge of anesthetics through practical experience. The general subject of anesthetics is discussed in the first chapter, attention being paid to the duties of the anesthetist, the examination of patients, preparation, apparatus, physician and after-treatment. Under the last head comes shock and collapse and artificial respiration. The author then takes up the various anesthetics, considering nitrous oxid, ether, chloroform, ethyl chlorid and various mixtures in the order named. The last chapter is on the selection of an anesthetic, the relative advantages of the different anesthetics being first considered and the special indications in different conditions being taken up. The book is well illustrated with plates, showing the various positions, methods of performing artificial respiration, different kinds of apparatus employed, etc.

GENERAL SURGERY, of the Practical Medicine Series. Under the General Editorial Charge of G. P. Head, M.D., Professor or Laryngology and Rhinology, Chicago Postgraduate Medical School. Vol. II. Edited by John B. Murphy, A.M., M.D., LL.D., Professor of Surgery in Rush Medical College. Series 1907. Cloth. Pp. 608. Price, $2.00 per volume. Chicago: Year Book Publishers.

This volume of nearly 600 pages is a valuable addition to the library of the practitioner. It contains an admirably arranged digest of the surgical literature of the preceding year. The editor has selected the wheat from the chaff with good judgment. To the summing up of vexed questions he has brought large experience, and his conclusions are stated with unquestionable clearness and finality. It is eminently a book of ready reference covering the ground of general surgery and giving the most advanced views of modern surgeons.

Medicolegal

Child's Estate Not Liable for Services Rendered at Request and on Credit of Father.

The Supreme Court of Georgia holds, in the case of Gaston vs. Thompson, that where a surgeon, at the instance and request of a father, rendered necessary professional services to his minor child, solely on the credit of the father, the child having no estate at the time, but subsequently becoming possessed of property for which a guardian was appointed, an equitable action did not lie against the guardian and his ward to subject the property of the latter to the payment of the debt for such services, though the father was insolvent. The court says that this ruling is not in conflict with the intimation in Poole vs. Wilkinson, 42 Ga. 539, that if necessary medical services were rendered to the ward on the credit of the ward's estate, and not on the credit of the guardian, equity might, if the guardian were insolvent, grant relief by causing the debt to be paid out of the ward's property.

Liability of Hospital Conducted for Private Gain.

The Supreme Court of Appeals of West Virginia holds, in the case of Hogan vs. Clarksburg Hospital Company, that a hospital, incorporated and conducted for private gain and for the benefit of the stockholders thereof, is liable in damages to its patients for the negligence or misconduct of its officers and employés. A patient sent to such hospital is entitled to such reasonable care and attention for his safety as his mental and physical condition may require.

The court says that there can be no question about the liability of a hospital which is being conducted for private gain, and not for charitable purposes, for damages to its patients through the negligence or misconduct of its officers and employés. It is bound to exercise that degree of care towards its patients placed therein, measured by the capacity of such patients to look after and provide for their own safety. It is the duty of such hospital to employ only competent physicians and nurses, and to treat such patients with such skill and care as ordinarily obtains in the conduct of such institutions, and to protect its patients in such manner as their condition may render necessary, and such degree of care and diligence should be in proportion to the physical or mental ailments of the patient rendering him unable to look after his own safety.

But a hospital, the court says, is not an insurer of its patients against injury inflicted by themselves, or that a patient in a hospital must be attended continuously by a nurse or other attendants. It is required to use only ordinary and reasonable diligence in the treatment and care of its patients.

In this case the plaintiff, suffering from epileptic fits, was sent to the hospital while under the influence of epilepsy and unconscious. He was left alone. There were two beds in the room in which he was placed, and an open gas fire. Both beds became rumpled and set on fire, showing beyond question that after he had gotten to the fire and ignited his clothes, he had been to the beds, and fired them from his own burning clothes. Taking into consideration the condition of the plaintiff when he was taken to the hospital, that he was unconscious and oblivious to all his surroundings, and yet physically able to get up and tumble about, the court thinks that it was very easy to foresee the possibility of the result which came to him with an open gas fire burning in the room by leaving him to look after his own safety, and it reverses a judgment rendered in favor of the defendant.

Competency as Witness of Physician Disclaiming to be an Expert.

The Supreme Court of Georgia says, on the appeal of Glover vs. State, a homicide case, that error was assigned in that a physician, after having testified "that his only experience in mental diseases was such as came to him as a physician in general practice, and that he had made no special study of the subject, nor had any experience that would make him a specialist or expert on nervous diseases," was allowed, over objection, to answer the question: "What is the difference between idiocy and lunacy?" It was contended that it was

error to allow a physician who expressly disclaimed to be an expert to differentiate and define the different forms of insanity. It was also claimed that error had been committed because the judge, in his ruling on the question, said that, though the physician disclaimed to be an expert, yet, if the evidence showed that the witness was capable from his experience, education, and observation to give an opinion and to be treated as an expert, it was proper that he should be so treated, notwithstanding the fact that he disclaimed being an expert. The error claimed was that the judge, in effect, told the jury that, though the physician disclaimed being an expert, the evidence showed the court that he was an expert, and could answer any question that could be propounded to an expert. This was followed by complaint that this same witness, "who disclaimed to be an expert," was permitted, over objection, to answer a stated hypothetical question.

The Supreme Court holds that no error was committed in either of these rulings. It says that the question of whether the witness was or was not an expert was not one to be determined by him but by the court. Hence, the mere fact that a witness in his testimony may disclaim to be an expert is no reason for refusing to allow him to testify as one.

A witness might have such a very modest estimate of his own abilities and qualifications to give an expert opinion on a given subject as to disclaim being an expert in reference thereto; and yet his testimony as to his education, study, experience, investigations, and the extent and scope of his practice or work in his profession or avocation might be such as to show him well qualified to give such an opinion. On the other hand, a vain or conceited person, called as an expert witness, might, in the most positive terms, declare himself to be one in reference to the subject under investigation, and yet his other testimony might disclose such woeful ignorance and want of intelligent observation and experience in the premises as to render his opinion of no value whatever. It would be a dangerous rule to allow the question whether a particular witness is or is not an expert as to the question under consideration to depend solely on the witness' opinion of his own qualifications in reference to the matter.

Liability for Blindness Attributed to Medicine.

The Kansas City Court of Appeals says that the plaintiff in the malpractice case of Thompson vs. Martin, now about 43 years of age, was, in 1903, working as a janitor at one of the public schools of Kansas City. In November of that year he was having trouble with his eyes. This trouble was granulated lids and an ulcerated condition of the eyes. He called in the defendant to treat him. The defendant prescribed a 2 per cent. solution of corrosive sublimate to be used as a wash. The plaintiff contended that he used the medicine and that it made him blind, and that his blindness had continued up to the time of the trial—more than two years after the medicine was used. The defendant contended that he gave the plaintiff oral instructions to put one-third of a dropper full of the medicine in half a tumbler of water, and use it so diluted. This was denied by the plaintiff.

The plaintiff brought his suit alleging that the carelessness and negligence of the defendant in prescribing a poisonous and dangerous medicine had resulted in his being made permanently blind and asked judgment for $25,000. He introduced the testimony of three witnesses—that of himself and of two physicians. He testified that he was totally blind in one eye and that with the other he could not recognize members of his own family, and could not see the members of the jury, nor see where the jury was located. One of the physicians testified that the medicine prescribed, if used undiluted, would destroy the sight of the eyes; and that the plaintiff was practically blind, and would never recover vision enough to follow any trade or occupation, or read a newspaper. The other physician testified that the medicine prescribed, if used undiluted, would destroy the sight of the eyes.

The defendant introduced the testimony of four physicians who were experts in treating diseases of the eyes. Each testified that in a case of ulcerated eyes it would be proper to use the medicine prescribed in undiluted form for a few times, and that no injurious effect would follow. The plaintiff had already testified that he used the medicine in its undiluted form only once in the right eye, and only twice in the left eye.

The jury brought in a verdict for $1,500 in the plaintiff's favor, judgment for which is here affirmed.

The court considers that the jury would have been justified in finding either for the plaintiff or for the defendant, as the evidence was conflicting. The defendant admitted this, but contended that if the plaintiff was entitled to recover at all, the verdict should have been for $25,000, the amount claimed. He argued that the jury did not believe that he was responsible for the unfortunate condition of the plaintiff, but that they allowed their sympathies to lead them to try and aid him by way of a money judgment. But the court holds that in this case the verdict for the plaintiff was amply sustained by the evidence, and was such as might have been rendered by an impartial jury. The most rational conclusion deducible from the whole case was that the jury believed that the defendant's act in giving the plaintiff the medicine without direction to dilute it before he applied it to his eyes was to be attributed to the fact that he thought he had given such directions. The defendant, on the trial, swore that he had given such directions, and the jury might well have come to the conclusion that the defendant made an honest mistake, which might account for the smallness of the verdict. The plaintiff with propriety might have attacked the verdict on the ground that the sum awarded was inadequate; but as he saw fit to acquiesce in the result, the defendant ought to be satisfied also, as he was bound to admit that under the evidence a verdict in plaintiff's favor was supported by the evidence.

Liability of Hospital for Injury to One Patient by Another Escaped from Nurse.

The Court of Appeals of Kentucky affirms, on the appeal of the University of Louisville vs. Hammock, a judgment for $1,000 damages in favor of the latter party, the plaintiff in the court below, for injuries to her person, alleged to have been received while a patient in the defendant's infirmary at the hands of a demented or partially demented patient of the same institution, who, it was charged, had negligently been permitted to escape from his room and keeper, wander into that of the plaintiff, and assault and maltreat her.

The court says that the facts, as disclosed by the evidence, were, in substance, that the plaintiff, a married woman, who was laboring under a serious illness, and greatly prostrated thereby, had placed herself in the hospital at the instance of her physician. She was a pay patient, and had the right to expect of the defendant and its employés in charge of the institution careful and skilful nursing and treatment such as her case particularly required. Indeed, the sick leave their homes and enter hospitals because of the superior treatment there promised them.

On the day after the plaintiff entered the hospital, its manager received as an inmate thereof a patient who was at the time afflicted with delirium tremens, who was placed in a room of the hospital on the floor beneath that occupied by the plaintiff. At 10 p. m. of the same day he became so uncontrollable that he overawed the single female nurse in whose charge he had been left, and, escaping from his room, passed through the hall of the building and upstairs, entered the room occupied by the plaintiff, seized her by the arms, struck and bruised her person, and dragged her from the bed, to her great fright and injury.

Whether that patient manifested a disposition to become violent between the time of his admission to the hospital and the time of his breaking away from the nurse did not definitely appear from the evidence, but his disease being known, as it was, to a physician of the institution, its head nurse, and two of her assistants, when he was received, and their further knowledge, especially that of the physician, that a person so afflicted might reasonably be expected to become violent, uncontrollable, and dangerous at any time, ought to have induced them to take such reasonable precautions with reference to his control or confinement as would have prevented his inflicting injury on other inmates of the hospital. Yet this powerful man, crazed from the excessive use of spirituous liquors, and by reason of that fact uncontrollable and dangerous, was

left in an insecure apartment and in charge of but one woman, who was utterly powerless to restrain him. Under these circumstances, it would seem to a reasonable mind that what happened was to have been expected, if not inevitable.

There was, therefore, some evidence of negligence to go to the jury, and, in the light of that evidence, the court does not feel called on to declare that the verdict finding the defendant guilty of negligence was unauthorized.

Nor does the court consider that the defendant was exempt from liability for the negligence of its servants, as a charitable institution, although eleëmosynary institutions and other institutions of like character devoted to purely charitable uses, whether maintained by government, corporations, or individuals, are exempt from such liability as was here imposed on the defendant, on the ground that they are mere instrumentalities brought into being to aid in the performance of governmental or public duty. If, as must be conceded, the defendant's hospital was subject to taxation because it was not a charitable institution, it was for the same reason responsible for the torts (wrongful acts) of its agents and employés.

Current Medical Literature

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Medical Record, New York.

March 14.

1 *Effects of Tobacco in Surgical Practice. L. B. Bangs, New York.
2 Preliminary Report of a Case of Cerebrospinal Meningitis of Streptococcus Origin Apparently Cured by Subdural Injection of Antistreptococcus Serum. G. L. Peabody, New York.
3 Septal Hematoma and Abscess. J. E. Newcomb, New York.
4 *Renal and Urethral Calculi Complicating or Simulating Appendicitis. J. F. Erdman, New York.
5 *Retrodeviation of the Uterus and Treatment by Shortening the Round and Sacrouterine Ligaments. C. F. Kivlin, Troy, N. Y.
6 Case of Traumatic Rupture of the Spleen. V. E. Watkins, Fort Greble, R. I.
7 Two Cases of Relapsing Fever. S. J. Goldfarb, New York.

1. Tobacco and Operative Surgery.—Bangs describes two cases in which dangerous symptoms of collapse supervened after operation, when all, surgically speaking, was going well. In both cases it was found that the patients were habitual tobacco users, and almost instant subsidence of the serious symptoms ensued after a few whiffs of tobacco. Bangs considers that the cases certainly contravene the common opinion, shared by scientific and lay observers, that an habitual user of tobacco can have it suddenly withdrawn without detriment. He considers that frequently the mental irritability and restlessness, and even vital depression, not to be accounted for by the surgical state, might be found in enforced abstinence from tobacco. It is probable that the surgical conditions render men more susceptible to depressing influences and less able to resist the loss of the daily stimulant. He also points to his cases as indicating the rapidly stimulating effects of tobacco by inhalation.

4. Renal Calculus and Appendicitis.—Erdman points out that pain in the lower right quadrant of the abdomen does not always signify appendicitis, but may be associated with hernia, renal or ureteral calculus, ovarian incision, appendicitis, etc. When seeing a patient complaining of pain in this region, each of these possibilities should be eliminated, and the weight attached to "McBurney's point" should be elastic. Erdmann has seen, during the past few years, a series of patients with renal calculi complicating or simulating appendicitis. The difficulty in diagnosis arises only in the slow cases of appendicitis and in the cases designated as interval, in which no typical acute attack has ever been evidenced. On the other hand, only those cases of stone presenting slight evidence of impaction, or slight to no marked urinary symptoms, etc., are mistaken for appendicitis. Differential diagnosis must be made by a close urinary examination, followed by radiography, and occasionally by urethral examination with a waxed catheter or bougie. In calculus, no matter where situated, the following are the painful areas: the testicle, penis and inner surface of thigh, as well as McBurney's area. In simple calculus, pain rigidity of the abdominal muscles is not usually present. The relaxation of the pressure is not followed by the pain usually noticed in acute appendicitis. The pain is not usually increased in a line toward the umbilicus, while pain on coughing and deep respiration are unusual. Elevation of temperature is not usually present in calculus cases, save in the presence of an infective process. Pain in the back, loin, groin, inner surface of thigh, urethra, testes and penis in the male, and in the vulva and urethra in the female, with frequency of urination, definitely points to a possible renal calculus. No better diagnostic means is at our disposal than the *x*-ray. He considers the operative method of approach in calculi, preferring the transperitoneal localizing method on account of its rapidity. He cites three cases.

5. Retrodeviation of the Uterus.—Kivlin advocates a combination of the Alexander operation and shortening of the sacrouterine ligaments. After opening the abdomen in the median line, drawing the uterus forward puts the sacrouterine ligaments on the stretch. These are doubled on themselves by sutures introduced on each side and tied simultaneously by the surgeon and his assistant on opposite sides. He considers that the failure of the Alexander operation is due to the fact that the round ligaments are guiding, rather than supporting, ligaments, and hence can not be depended on to correct the retroversion, because they do not lift the uterus up, but guide it forward.

Boston Medical and Surgical Journal.

March 12.

8 *Genesis and Nature of Hysteria: A Conflict of Theory. J. W. Courtney, Boston.
9 Clinical Observations on Diagnosis and Treatment of Exophthalmic Goiter. J. M. Jackson and L. G. Mead, Boston.
10 Strictures of the Esophagus Dilated Through the Esophagoscope. J. P. Clark, Boston.
11 Case with Grave Gastric Symptoms of Reflex Origin. R. F. Chase, Boston.
12 Prolonged Conjunctivitis Following Calmette's Ocular Reaction. M. Mackay, Montreal.

8. Hysteria.—Courtney discusses three hypotheses: 1, That of Freud, that it has a sexual genesis; 2, Babinski's theory, that hysteria has two sets of disturbances, primary, capable of being reproduced by suggestion, and of being made to disappear under the exclusive influence of persuasion, and secondary which are strictly subordinated to the primary; and 3, the views of Janet, which make of hysteria a purely psychic disorder. In regard to Freud's view, Courtney holds that it is only to the unwholesome type of sexual hyperesthetes or anesthetes, in whom any unusual accident in the sexual sphere may result in hysteria, that Freud's theory is applicable. With regard to Babinski's theory, he says that nowhere does Babinski attempt to enlighten us on the nature of hysteria. To say that in certain subjects the symptoms, which he somewhat aribitrarily assigns to hysteria, may be rigorously reproduced by suggestion, is merely to emphasize one of the clinical attributes of this morbid condition, viz., hypersuggestibility; we must still seek to determine the nature of the disturbance of the psychic functions which give rise to this exaggerated suggestibility. As regards Janet's view, he says that while this author has furthered our understanding of one of the most remarkable and important stigmata of hysteria, the regression of the field of consciousness, to a degree hitherto unattained, he has left us, so far as concerns our understanding of what is behind this peculiar stigma and causes it, exactly *in statu quo*. Courtney has no views of his own to propound, but he expresses his conviction, gained from clinical experience, that hysteria is the clinical expression of a simple adynamic condition of the brain, and that in our part of the world we rarely see more than a *"forme fruste"* of the classical picture; the somnambulistic phenomena, the complete abulias, the deliria, the paralyses and contractures, even the absolute hemianesthesias and amauroses being genuine rarities. He considers the unfavorable prognosis laid down by American writers as rather an echo of the French school, than an independent conviction based on their own experience. He is also satisfied that in environment and psychotherapy we have two

agents absolutely adequate for the cure of practically every case we encounter in daily work. He cites the mental effects, such as of military music on soldiers, of a waltz measure, of the spoken or written word, as illustrating his conception of psychotherapy, that it is in essence based on the fact that the infusion of force and activity into brain cells is by no means a purely endogenous process. Psychotherapy stands for anything and everything that acts on the intellect and emotions in a way to recharge depleted brain cells. While not contending that hysteria never results from traumatism, he maintains that the injury is rarely anything more than the last straw, and that if half the zeal shown in proving that hysteria can result from bodily injury were directed to therapeutic ends, our professional duty would be more profitably fulfilled. The barren references to trauma as a cause of hysteria up to the time when great commercial enterprises were held responsible for the safety of their employés and of those they conveyed, he regards as a sinister fact.

New York Medical Journal.

March 14.

13 *Acute Flexures or Angulations of the Sigmoid and Colon. J. P. Tuttle, New York.
14 *Diagnosis of Diseases of the Heart. W. H. Porter, New York.
15 Indicanuria: Etiology, Diagnosis, Pathogeny and Treatment. G. M. MacKee, New York.
16 Case of Accessory Sinus Disease with Symptoms of an Osseous Tumor of the Orbit. B. Chance, Philadelphia.
17 *Winter Diarrhea in Infant Feeding. E. K. Shelmerdine, Philadelphia.
18 Case of Acute Double Miliary Tuberculosis of the Conjunctiva. H. F. Hansell, Philadelphia.
19 Cautery Clamp for Hemorrhoids. D. H. Murray, Syracuse, N. Y.
20 Cause of Premature Separation of the Placenta. S. Robbinovitz, Brooklyn, N. Y.
21 Acute Purulent Otitis Media in Infants and Young Children. A. J. Herzig, New York.

13. Flexures of the Colon.—Tuttle calls attention to the influence of acute flexures or angulations of the colon and sigmoid in the causation of constipation and fecal retention. The term acute is used by him in the geometrical, not the clinical, sense. These angulations are anatomic throughout the colon and in normal conditions retard to a slight degree the fecal current, and when through displacement or any other cause the bend is exaggerated, the obstruction is proportionately decreased. A shortening of the mesentery by inflammation or adhesion or the fixation of the gut by adhesion may either or both together cause angulation which will narrow or even obliterate the intestinal caliber. The flexures may be congenital or acquired. He describes with illustrations various types. The symptoms are constipation or local stasis, which may suggest appendicitis. The removal of the appendix in such a case will not cure the patient; the flexure must be straightened out at the same time, or there will be fecal obstruction. He suggests that this may account for some fatal appendicectomies. Other symptoms are local and constitutional, and include the whole category of the reflex phenomena associated with bowel obstruction. In the congenital type there is always a history of colic, distended abdomen, constipation and indigestion. In a girl, there is delayed or irregular menstruation, imperfect development, and often intractable leucorrhea; the constipation, flatulence and colicky attacks persist. In the acquired angulations there is usually, besides constipation and distended cecum, a history of dysentery, typhoid, acute colitis, sigmoiditis, pelvic peritonitis or inflammation of the pelvic organs. Incomplete evacuation is another symptom. The treatment is palliative and radical. Tuttle has given great and lasting relief by pneumatic inflation and by passing long rectal bougies through the flexure and leaving them *in situ* for from fifteen to twenty minutes. The bougie should always be passed through the sigmoidoscope beyond the flexure, or it may double on itself. An oil or water enema should be injected to wash out the bowel. When such palliative measures fail, or when the condition is clearly due to malformations or firm fixation, operative intervention should be resorted to at once, the operation varying in each case. The rule is to straighten out the flexures, cover in the raw surfaces, and if necessary fix the bowel so that it can not resume the old position. He reports eleven cases.

14. Heart Diagnosis.—Porter urges the importance of knowing how to recognize and interpret correctly the so-called valvular murmurs. He describes the normal position of the heart as occupying a triple oblique position in the chest cavity, or one corresponding to a line drawn from right to left, from above downward, and from behind forward—a position that has for its central axis a line represented by one transfixing the body from behind forward, starting posteriorly at the sixth dorsal vertebra, passing through it and the cavity of the chest, and emerging on the anterior surface of the thorax, through the fifth intercostal space 1.34 centimeters (3.5 inches) from the midsternal line. The positions in the living body differ somewhat from those seen on inspection of frozen sections. He discusses the various murmurs at length, but the article does not lend itself to abstraction.

17. Winter Diarrhea in Infants.—Shelmerdine points to the existence of a winter diarrhea of children strongly resembling the summer diarrhea, and relates a case in his own household. He found the diarrhea to result from the freezing of milk, which spoils it, and causes curds to form on thawing. After straining the milk the diarrhea disappeared. The diarrhea of frozen milk is not so severe or debilitating as that of the summer season. If need be, the child can be taken off the milk diet for twenty-four hours and given barley water in the interim.

Lancet-Clinic, Cincinnati.

March 7.

22 Defective Children. D. I. Wolfstein, Cincinnati.
23 *The Hymen; Anatomically, Medicolegally and Historically Considered. E. S. McKee, Cincinnati.
24 An Unsuccessful Anastomosis of the Brachial Artery. M. Millikin, Hamilton, Ohio.
25 *Decayed Teeth and Appendicitis. W. G. Smith, Cincinnati.

23. The Hymen.—McKee discusses the development, anatomy and anomalies of the hymen and the mode of examination necessary to afford a complete comprehension of its size, shape and general arrangement. He suggests the passage of an ordinary soft red rubber catheter having bound over its point about an inch and a half of an ordinary rubber condom. This can be passed into the vagina and then expanded either by inflation or by the injection of warm water. The catheter is then clamped, and by withdrawing it with very gentle traction the hymen is put slightly on the stretch and bulged from within, so that the whole margin is fully exposed to view and any interruption in its integrity becomes at once perceptible. The importance of the ability thus afforded of estimating the condition and characteristics of the hymen is shown in relation to medical jurisprudence. As regards the question of virginity, however, the hymen is now known to possess much less significance than was formerly ascribed to it. He adds a few items of folklore on the subject.

25. Decayed Teeth in Appendicitis.—Smith, in discussing the education of pupils in the public schools, with regard to the inculcation of hygiene of the mouth, suggests that there is good reason to believe that neglected teeth are largely responsible for the increase of appendicitis. He quotes in support of this opinion a statement of Sir Frederick Treves.

Archives of Internal Medicine, Chicago.

February.

26 *Diagnosis of Typhoid Fever by Cultures from the Blood of the Ear. F. W. Peabody, Boston.
27 *Bearing of Metabolism Studies on Clinical Medicine. D. L. Edsall, Philadelphia.
28 *Cancer Problems. J. Ewing, New York.
29 The Acetone Bodies, with a Clinical Method for the Quantitative Estimation of Diacetic Acid and Acetone. T. S. Hart, New York.
30 Experimental Observations on Secretin, with Special Reference to Diabetes and Malnutrition. J. E. Sweet and R. Pemberton, Philadelphia.
31 Present Status of Knowledge of the Chemistry of the Processes of Immunity. H. G. Wells, Chicago.

26. Diagnosis of Typhoid Fever.—Peabody describes a method of blood diagnosis by a simple process, obtaining the blood by pricking the lobe of the ear—first cleansed, of course, with alcohol and sterile gauze; from 1 to 2 c.c. can thus be collected without inconvenience. This is added to 5 c.c. of sterile ox gall (Kayser), not to exceed 50 per cent. of its volume, and incubated for 15 hours. Microscopic examination of a drop

of the bile may show organisms, or it may be necessary to transfer several loopfuls to a tube of coagulated blood serum. After from 3 to 5 hours' incubation, microscopic examination of the water of compensation shows the presence of motile bacilli. A transfer is then made from blood serum to agar for the stock culture. The rapid growth of the typhoid bacilli will soon crowd out any contaminating cocci, if present. The demonstration of a motile bacillus in the water of compensation of the blood serum can be made in 18 or 19 hours at most, and this in itself appears good evidence of typhoid or paratyphoid infection. In no case was a motile bacillus subsequently shown to be other than the etiologic organ. Various other methods, however, were adopted to identify the organism completely. He discusses the technical advantages and states that the results attained show that in the early stages of typhoid fever the diagnosis can be made in the majority of cases by isolating the etiologic organism from the blood. Inasmuch as the requisite amount of blood can be so easily obtained from the patient's ear, there is no reason why the method should not be applied in every suspicious febrile case. The study of the culture and the identification of the organism is a comparatively simple bacteriologic process when laboratory facilities are available.

27. **Metabolism Studies and Clinical Medicine.**—Edsall refers to the natural tendency of the laboratory man to grow further and further from the clinical aspects and of the clinician to neglect or depreciate the importance of laboratory findings. Attention to practical detail requires to be guided by general principles, to yield satisfactory results. Studies of metabolism, in the broader sense of this term, Edsall thinks are a more fruitful source of clinical principles than any other form of investigation save that relating to hygiene. He discusses the relation of excretion to ingestion, pointing out particularly that the excretion of any substance can not be taken as an indication of the severity of the disease process without a consideration as to how much of it is supplied by ingested material; the value of cryoscopy as affected also by the results of metabolism; as well as the uric-acid diathesis, in which excretion is affected by the kind of food taken, and by the fact of the formation of uric acid in the body, not only directly from tissue break down, but also almost certainly synthetically. He next discusses dietetics and specific diet, tissue ferments, and the bearing on our future control of certain disease processes of the fact that it is not the ferment itself, but the medium in which it acts, that determines so profoundly important a result as to whether the effect is to be construction or destruction. The study of protein complex and the metabolism of inorganic substances next engages his attention, and he concludes by insisting that a greater breadth in our conception of the nature of normal and disease processes will lead to the gradual accumulation of principles from which will be deduced facts directly available in practice. The article deserves study by all, but especially by every clinician who is prone to depreciate laboratory work and by every laboratory man who scornfully repudiates the mixing of science and empiricism.

28. **Cancer Problem.**—Ewing discusses with elaborate completeness (1) the parasitic theory, (2) the theory of cell autonomy, and (3) the modern biologic and chemical study of tumors. As regards the first point, his considerations lead to the conclusion that external irritants and parasites are concerned only with the inception of tumors, and then indirectly; they suggest that certain irritants and parasites may be peculiarly effective in producing tumors; they suggest that in some tumors, especially in lower animals, neoplastic hyperplasia may depend in varying degrees on cellular irritants; they leave the way open for the discovery of new irritants and parasites concerned with the beginnings of tumors; but they shut the door against the theory of a special cancer parasite and of the necessity of a continuous irritant propagated by a microorganism throughout the course of a malignant tumor. As regards the second point, he says that the theory of cell autonomy seems to account adequately for the phenomenal growth of tumors. It may be necessary to provide an external stimulus, but this necessity is not clearly apparent. So far as we know, the limitless capacityof tumor cells to absorb nutriment and grow may be an essential property of the protoplasm and organization of tumor cells, and beyond this descriptive knowledge we may not hope to penetrate. The whole basis, objective and theoretical, of the cancer parasite has been gone over again and again, with the uniform conclusion that the cancer parasite is the cancer cell. We should avoid, therefore, the temptation of searching for an easy solution of the cancer problem and content ourselves with the more laborious but safer progress along the lines converging in the doctrine of cell autonomy. As regards the third point, he is strongly of the opinion that information of fundamental importance in this field is still to be obtained by minute observation and analysis of the general and local conditions surrounding the early stages of cancer. This is the exclusive opportunity of the clinician—medical, surgical and special—but it is often neglected. In it lies the chief hope, for the present generation, of a reduction in the mortality from cancer, by the earlier recognition of the precancerous stage of the disease and the elimination of some of its accessible factors. In regard to the treatment of cancer, he says that the new era has not succeeded in devising a cure for cancer. While some observers are very confident, there does not seem to be legitimate ground for the hope that any will shortly be discovered. The *x*-ray, bacterial toxins, vaccination with *Micrococcus neoformans*, inoculation with the substance of thyroid, thymus, liver and other toxic proteins, serum prepared against cancer tissue or its proteids, and Beard's pancreatin method of treatment all produce more or less destruction of the older portions of true cancers, with deceptive reduction in the size of the tumor, while the patient goes on to die from progressive infiltration by the more resistant tumor cells and with accelerated metastases and cachexia.

Philippine Journal of Science, Manila.

December.

32 *Etiology of Mycetoma. W. E. Musgrave and M. T. Clegg, Manila.
33 *Experiments in Malarial Transmission by Means of Myzomyia Ludlowii Theob. C. S. Banks, Manila.
34 *Preliminary Report on the Specific Identity of the Cestode Parasites of Man in the Philippine Islands with Description of a New Species of Tenia. P. E. Garrison, Manila.
35 Chronic Ulcers Occurring in the Philippines. G. C. Shattuck.

32. **Mycetoma.**—Musgrave and Clegg report a case of mycetoma of the ochroid variety—the first reported case for the Philippines—review the literature of the subject and give a bibliography. A streptothrix, which they have named *Streptothrix freeri*, differing in certain particulars from other described organisms of this class was cultivated from the lesions in the foot and a disease similar to that found in man was produced in monkeys by inoculations of the cultures into the feet of these animals. They state that the important questions open for discussion are as follows: 1. Is *S. freeri* sufficiently different from previously described organisms to entitle it to be classified as a new species? 2. Is mycetoma a distinct disease etiologically, or is it one type of manifestation of more than one species of streptothrix infection? 3. Are the ochroid and melanoid varieties different stages of a single etiologic entity, or are they due to different species of streptothrix? 4. What is the relation of mycetoma to actinomycosis? These questions they answer as follows: 1. There seems to be conclusive evidence that *S. freeri* differs from *S. maduræ* reported by Vincent as the cause of infection in the ochroid variety, and from the hyphomycete named by Rice as the etiologic factor of the melanoid type. 2. There can be no reasonable doubt that all types of mycetoma are due to streptothrix infection, but whether all the forms are caused by an infection with a uniform organism, or whether more than one species plays a part in the disease, can not now be positively stated. 3. The etiologic identity of the two varieties of the disease must be questioned until further experimental work is done with both Wright's and their own organism. 4. The often repeated statement that the ochroid variety of mycetoma is actinomycosis is not supported by the weight of evidence in the literature, and is positively disproved by the present authors' work. *Actinomyces hominis* is a different species of streptothrix from those producing mycetoma. Fur-

thermore, the two diseases show decided differences in clinical manifestations and in the pathologic findings.

33. Malarial Transmission by Myzomia Ludlowii Theob.—The author discusses the occurrence of *Myzomyia ludlowii* Theob. as a new species of *Anophelinæ* capable of transmitting malaria. The species flourishes only in salt water. Its life history, breeding habits and mode of attack are described and the experimental transmission of malaria by its means is demonstrated.

34. Cestode Parasites.—Garrison reports having found *Tænia saginata* (the beef tapeworm), *T. solium* (the pork tapeworm), *Hymenolepis nana* (the dwarf tapeworm), *H. diminuta* (the thirteenth infection reported for man with this common parasite of rats), and a new cestode of man which he named *T. philippina*. The first three species have been previously reported from the Philippines, but from a clinical viewpoint and without careful study of the specific characters of the specimens. *T. philippina* resembles most closely *T. saginata*, but differs chiefly in its shortness (82.8 cm.), the greater breadth of the segments compared to their length, the massive, compact structure of the gravid uterus, and the transversely elongated ovarian lobes.

American Journal of Physiology, Boston.

February.

36 *Mechanism of Embryonic Heart Rhythm in Limulus. A. J. Carlson, Woods Hole, Mass., and W. J. Meek, Chicago.
37 Conductivity Produced in the Non-Conducting Myocardium of Limulus by Sodium Chlorid in Isotonic Solutions. A. J. Carlson, Chicago.
38 Refractory State of the Non-Automatic Heart Muscle of Limulus. Id.
39 Rate of Oxidation of Sugars in an Acid Medium. H. H. Bunzel, Chicago.
40 Perfusion Experiments on Excised Kidneys; Effects of Various Poisons. T. Sollmann, Cleveland, Ohio, and R. A. Hatcher, New York.
41 *Effect of Vagus Inhibition on the Output of Potassium from the Heart. W. H. Howell and W. W. Duke, Baltimore.
42 Chemical Studies on Growth: Transformation of Glycogen by the Enzymes of Embryonic Tissues. L. B. Mendel and T. Saiki, New Haven, Conn.
43 Autolysis of Embryonic Tissues. L. B. Mendel and C. S. Leavenworth, New Haven, Conn.
44 Changes in the Purine, Pentose and Cholesterol Content of the Developing Egg. Id.
45 Catalase of Animal Embryonic Tissues. Id.
46 Occurrence of Lipase in Embryonic Animal Tissues. Id.
47 Composition of Embryonic Muscular and Nervous Tissues. Id.
48 *Function of the Inorganic Salts of the Protozoan Cell and Its Medium. A. W. Peters, Urbana, Ill.
49 *Acapnia and Shock: Carbon Dioxid as a Factor in the Regulation of the Heart Rate. Y. Henderson, New Haven, Conn.

36. Heart Rhythm in Limulus.—The work of Carlson has shown that the stimulus to the heart pulsations in the limulus (horse-shoe crab) is neurogenic. The investigations of Carlson and Meek show that pulsations begin in the embryonic heart of limulus, before there is any evidence of nerves supplying it. The automatism of the heart of the limulus embryo must therefore be myogenic, and, as the conduction and automatism in the adult limulus heart are neurogenic, there must take place a transfer of automatism and conductivity from the myocardium to the nervous tissue at some stage in the embryonic development.

41. Vagus Inhibition and Cardiac Output of Potassium.—By supplying the isolated mammalian heart with Locke's liquid and stimulating the vagus, the amount of potassium can be increased as much as 29 per cent. Howell and Duke believe this increase referable to an output of potassium from the heart substance, due, probably, to the fact that the inhibitory nerve impulses cause a dissociation of an indiffusible compound in the heart substance, and the liberation of the potassium in diffusible form. The results obtained are presented as evidence in favor of the view that the inhibitory action of the vagus on the heart is mediated through the influence of a diffusible potassium compound set free in the heart by the inhibitory impulses. No change could be produced in the amount of calcium in the circulating liquid by this method. Stimulation of the accelerator nerve causes no increase in the potassium content of the circulating liquid.

48. Action of Inorganic Salts of the Protozoon Cell.—In order to determine the effect of the entire absence of salts from the external medium of the protozoon cell, Peters placed the animals in pure distilled water and maintained the purity of the medium by frequent renewals of the water. Control experiments were carried on in which all the conditions were the same, except that the water was not renewed. Conductivity tests made on the removed portions of the water showed that it did not remain in the condition of distilled water. The animals repeatedly contaminated the water, even after numerous renewals of their medium had been made. They were unable to maintain life in a medium which was continuously kept as near as possible to the condition of pure aërated distilled water. Distilled water progressively alters the character and permeability of the cell wall, which then permits the outward diffusion of the salts of the cell. Milk sugar and low concentrations of various salts dissolved in distilled water prevent its injurious action. Withdrawal of a portion of the salts is harmless. Excessive abstraction of salts is destructive, by disturbing the equilibrium of distribution of salts between the colloidal protoplasm and the liquids of its meshes. Primarily, the physical condition of the colloidal proteins is altered by the qualitative or quantitative change in salts. In consequence, chemical processes no longer maintain the equilibria of living protoplasm, and destruction of the system results.

49. Acapnia and Shock.—Henderson defines acapnia as a lack of carbon dioxid in the blood, and maintains that the cause of surgical shock is the absence of carbon dioxid from the blood, either in consequence of too rapid respiration or, possibly, by the exhalation of carbon dioxid from mucous or serous membranes. In experiments on dogs it was found that by regulating the rate of pulmonary ventilation the heart can be adjusted to any desired rate of beat.

Illinois Medical Journal, Springfield.

February.

50 Modern Treatment of Pulmonary Tuberculosis; Importance and Difficulty of Making an Early Diagnosis. J. W. Pettit, Ottawa.
51 *Diagnosis of Cardiac Insufficiency. G. W. Webster, Chicago.
52 Work of the Edward Sanitarium for the Treatment of Pulmonary Tuberculosis at Naperville in 1907. T. B. Sachs, Naperville.
53 *Specific Infection of the Female. J. P. Roark, Bushnell.
54 Effects of General Anesthesia from the Viewpoint of To-day. E. Mammen, Bloomington.
55 *Modern Surgical Treatment of Exophthalmic Goiter. A. P. Heineck, Chicago.

51. Published in the *Chicago Medical Recorder*, January, 1908, and abstracted in THE JOURNAL, Feb. 8, 1908, page 482.

53. Gonorrhea in the Female.—Roark points out that specific infection of the female is of the first importance to the general practitioner, inasmuch as he is nearly always called as first aid, the specialist not usually seeing the patient until the case has grown so grave that ablation of some organ is necessary. He attributes the great increase in the graver effects arising from a deeper extension of the specific poison to the great prominence given in the last quarter of a century to the vaginal douche. The gynecologic text-books offer no such general principles of value in the treatment of the causal base of gonorrheal affection as that offered by Ochsner's method for appendicitis. Specific vulvitis and urethritis are not dangerous to life, nor do they do permanent injury to the patient. These conditions result only when the deeper tissues of the genital tract are invaded. In western and southern Europe gonorrhea has been prevalent for at least five centuries and the frequency of ophthalmia neonatorum demonstrates its present ubiquity, yet those countries, until the last half century, have been the most prolific of races. Gonorrhea was as common 200 years ago as now, but no one thought of the race dying out on that account. While it is true, therefore, as gynecologists assert, that a considerable proportion of modern sterility is the result of gonorrhea, it is only the indirect, not the direct, result and is consequent on the invasion of the higher genital passages. The gonococcus has not changed, but the customs of the people have changed, and the damage effecting agent, in Roark's opinion, is the common use of the vaginal douche to clear away discharges, to prevent pregnancy, or as a therapeutic measure under medical direction, because not only does it carry the infection deeper, but it destroys the natural phagocytic action of the acid-forming bacillus of the vagina in the

presence of which the gonococcus will not long survive (Döderlein). The proper treatment, then, of gonorrhea in the female in the early stage is rest in bed, if possible, and the local use of hot water in the form of sitz baths. This simple method of treatment has resulted in a cure in all the cases that have come under Roark's care in the last six years. There is no need to worry over a copious vaginal discharge, which is only the physiologic attempt of the vagina to destroy the invading bacteria. When immunity, as evidenced by a complete subsidence of all inflammatory symptoms, is attained; then steps may be taken to destroy the infecting germs in the genital tract. For this purpose he uses the method employed by Chapelle, namely, a pessary of a pure form of yeast, or the yeast may be used as a paste with glycerite of starch. From three to five treatments, made at intervals of three nights, suffice to remove all germs.

55. This article was published in *Surgery, Gynecology and Obstetrics*, December, 1907, and the *Chicago Medical Recorder*, January, 1908, and was abstracted in THE JOURNAL, Feb. 1, 1908, page 401.

The Journal of Cutaneous Diseases, New York.

March.

56 *Idiopathic Multiple Hemorrhagic Sarcoma (Kaposi). M. B. Hartzell, Philadelphia.
57 *Clinical Groupings of Tropical Ulcers of the Philippines, with Negative Notes as to Etiology and Treatment. E. R. Stitt, U. S. Navy.
58 *Skin Diseases in the Negro. H. Fox, New York.
59 *Experimental Observations on the Histopathology of Urticaria Factitia. T. C. Gilchrist, Baltimore.
60 *Effects of Roentgen Rays on Paget's Disease of the Breast. R. Terzaghi and Professor Campana.

56 and 58. Abstracted in THE JOURNAL, Sept. 28, 1907, pages 1137 and 1138.

57 and 60. Abstracted in THE JOURNAL, Oct. 12, 1907, pages 1304 and 1305.

59. **Urticaria Factitia.**—Gilchrist describes about sixty lantern-slide sections from wheals, which showed marked edema of the connective tissue and the fixed cells, profuse emigration of polynuclear leucocytes, emigration of lymphocytes, pronounced fragmentation of polynuclear leucocytes and fixed connective tissue cells, apparent increase in mast cells, swelling of the cells of the sweat glands, and fibrin scattered throughout the corium. He concludes that the only explanation possible is that some toxin is circulating in the blood, and that when a wheal is produced some of the toxin is set free and produces death of cells, which is followed by acute inflammatory changes. Therefore, a true wheal is an acute inflammatory edematous swelling, due either to local inoculation of irritating substances, as in insect bites, etc., or to drugs or to some toxin probably originating in the alimentary canal.

Journal Missouri State Medical Association, St. Louis.

February.

61 *Indications for Electrotherapy. C. Shattinger, St. Louis.
62 *The Omentum as a Surgical Factor. T. E. Potter, St. Joseph.
63 *Cholecystectomy vs. Cholecystostomy. W. U. Kennedy, St. Louis.
64 Medical Scraps. T. F. Lockwood, Butler.
65 Medical Report of Missouri State Sanatorium for Incipient Tuberculosis for the Months of August to November, Inclusive. O. H. Brown, Mt. Vernon.

61. **Electrotherapy.**—Shattinger goes thoroughly into the mechanical and chemical effects of electricity, and the physiologic effects of the direct and induced current. He discusses sinusoidal currents, central and general galvanization and faradization, baths, static electricity and arsonvalization. There are two classes in which his experience leads him to expect no benefit, but, on the contrary, aggravation from general electrotherapeutic measures, namely, extreme nervous erethism and those cases in which the subjects, though not insane, are suffering from diseases entirely psychic in nature. The dermatoses suitable for local treatment are those characterized by fibrosis and chronic cellular infiltration, notably lupus erythematodes and chronic indurative eczema; disorders characterized by itching or pain—pleuritis, herpes zoster, fissures; angioparetic conditions—pernio (chilblain), acne rosacea; parasitic affections—furunculosis, acne, seborrhea, ephelides (freckles).

62. **The Omentum.**—Potter considers the anatomy and physiology of the omentum and the uses to which that organ has been put in surgery, and emphasizes its value in repairing abdominal breaches, plugging hernias, cleansing and preserving the cavity from infection and maintaining circulatory equilibrium by acting as a temporary reservoir. He believes that in operative work every effort should be made to preserve this important structure and that none of it, except parts actually diseased, should be removed, since loss of it renders the patient less capable of resisting peritoneal invasion.

63. **Cholecystectomy vs. Cholecystostomy.**—Kennedy adopts Moynihan's indications for cholecystectomy, but holds from his own experience, supported by that of eminent American surgeons, that there are others. Inflammatory conditions are the principal source of distress, and while cholecystostomy is a drainage operation, cholecystectomy does away with the need of drainage, without leaving behind an inflamed or diseased bladder, and especially without leaving that traction which the attachment of the bladder to the parietes entails, with the consequent liability of angulation and obstruction of the hepatic and common ducts. In brief, the thoroughness of cholecystectomy and its freedom from distressing sequelæ make it the operation of election.

Wisconsin Medical Journal, Milwaukee.

February.

66 *Roentgen-Ray Injuries. O. H. Foerster, Milwaukee.
67 *Anesthesia Paralysis. A. E. Halstead, Chicago.
68 *Administration of Oxygen After General Anesthesia. R. P. Peairs, Milwaukee.
69 Problems in Surgical Drainage. C. M. Echols, Milwaukee.
70 Case of Vomiting with Acetonuria and Fatty Metamorphosis of the Liver. A. W. Myers, Milwaukee.
71 Professor Politzer's Resignation. S. E. Wright, Marinette.

66. Abstracted in THE JOURNAL, Aug. 31, 1907, page 795.

67. **Anesthesia Paralysis.**—Halstead refers to that form of paralysis following and dependent on the administration of a general anesthetic. He collects a number of cases showing its varieties. The condition occurs in two forms, peripheral and central. The peripheral may be averted by proper treatment during narcosis. The central can not be prevented, though its danger may be avoided by limiting the quantity of anesthetic and by a preliminary hypodermic of morphin in ether anesthesia or ether narcosis, to control excitement.

68. **Postanesthetic Nausea.**—Peairs reports cases to show that the administration of oxygen after general anesthesia will to a certain extent prevent postoperative nausea.

New Orleans Medical and Surgical Journal.

February.

72 Acute Dilatation of the Stomach as a Postoperative Complication. C. J. Miller, New Orleans.
73 *Stricture of the Male Urethra. H. G. Spooner, Stanton, Fla.
74 Treatment of Coxitis. P. A. McIlhenny, New Orleans.
75 *Serum in the Diagnosis and Treatment of Tuberculosis. W. E. Evans, Chicago.
76 Retiring President's Address to Orleans Parish Medical Society. J. J. Archinard, New Orleans.
77 Address of Incoming President of Orleans Parish Medical Society. A. Granger, New Orleans.

73. **Stricture of the Male Urethra.**—Spooner discusses the causation of stricture and approves of the gradual dilatation treatment with Béniqué sounds; forced dilatation has become obsolete. Electrolysis, though well spoken of by some, can not be recommended by the writer. He discusses internal and external urethrotomy and concludes that if extensive deposits of connective tissue have been determined, whether from an old attack or a recent one, astringent injections should be eschewed, and attention directed to prevention of further contraction of scar tissue.

75. **Tuberculosis.**—Evans describes the technic and philosophy of tuberculin diagnosis and treatment of tuberculosis, and concludes that a great many lives are lost because physicians are not making early tuberculin diagnosis. Specific consumption therapy as an aid to fresh air, food and control, is worthy of study.

Therapeutic Gazette, Detroit.

February.

78 Injuries to the Head and Face. W. Lathrop, Hazleton, Pa.
79 Treatment of Acne Vulgaris. R. L. Sutton, Kansas City, Mo.

80 Modern Means of Diagnosis in Surgical Diseases of the Kidneys. C. P. Noble, Philadelphia.
81 *Preliminary Report on Calcium Chlorid in the Treatment of Hemoglobinuric Fever. W. H. Deaderick, Marianna, Ark.
82 *Anesthesia Perils in American Hospitals. J. B. Roberts, Philadelphia.
83 Researches That Aid and Support Clinical Experience. H. A. Hare, Philadelphia.

81. Abstracted in THE JOURNAL, Feb. 8, 1908, page 486.

82. **Anesthesia.**—Roberts discusses the anesthesia peril in American hospitals and ascribes it to inexperienced administrators, deficient teaching, unnecessary general anesthesia, too great dosage, insufficient care in watching symptoms of danger during operation, and neglect of close watching afterward. He says that many young physicians would study this branch of surgery if they were fairly sure that an income could be derived from so restricting their practice. The question of fees naturally arises here. Roberts' suggestion is that it be understood that a skilled anesthetist receive a fee equal to one-tenth that charged by the operator for the operation itself.

Western Medical Review, Omaha.

February.

84 Immunity, with Special Reference to Therapeutic Inoculation. L. Hektoen, Chicago.
85 Glaucoma. A. G. Lueschen, Columbus, Neb.
86 Placenta Prævia. M. Strong, Omaha.
87 Less Common Postoperative Complications with Their Treatment. D. T. Quigley, North Platte, Neb.

Progressive Medicine, Philadelphia.

March.

88 Surgery of the Head, Neck and Thorax. C. H. Frazier, Philadelphia.
89 Infectious Diseases, Including Acute Rheumatism and Croupous Pneumonia. R. B. Preble, Chicago.
90 Diseases of Children. F. M. Crandall, New York.
91 Rhinology and Laryngology. D. B. Kyle, Philadelphia.
92 Otology. A. B. Duel, New York.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Lancet, London.

February 29.

1 *Acute and Chronic Infections of the Urinary Tract Due to the Bacillus Coli. S. Dudgeon.
2 *Radical Cure of Inebriety; Certification of Inebriates. T. C. Shaw.
3 Case of Acid Intoxication Following Administration of Chloroform. H. Thorp.
4 Three Cases of Delayed Chloroform Poisoning. E. D. Telford.
5 Two Cases of Delayed Chloroform Toxemia. T. M. Bride.
6 Fatal Case of Delayed Chloroform Poisoning. H. C. Wilson.
7 Three Cases of Fracture of the Lower End of the Humerus. F. C. Wallis.
8 Pathology and Etiology of Intussusception from the Study of One Thousand Cases. (To be continued.) D. C. L. Fitzwilliams.
9 Two Cases of Anthrax. J. S. Clarke.
10 *Tansini Method for the Cure of Cancer of the Breast. F. Purpura.

1. **Bacillus Coli Infections of the Urinary Tract.**—Dudgeon discusses the clinical features and bacteriology of the urine, the occurrence of opsonins in normal and pathologic urine, the agglutination reaction, the presence of opsonins for the *Bacillus coli communis* in normal and immune blood serum, the blood of patients without evidence of infection with *Bacillus coli communis* and of those having such infection, normal horse serum and the serum of horses that have been employed for the preparation of the anti-coli serum, the bactericidal action of human and horse serum, and the prognosis and treatment of the condition. He concludes that if a definite line of treatment is decided on in chronic infections of the urinary tract due to the *Bacillus coli communis* the vaccine treatment should be adopted, employing the organism isolated from the patient's urine.

2. **Certification of Inebriates.**—Shaw urges a drastic law to admit of an habitual inebriate being committed in much the same way as a lunatic is now committed on the certification of two physicians. He proposes the following certificate:

I, ..., being a registered and qualified medical man, hereby declare that I have visited and examined ....., a ....., residing at ....., and that I am satisfied that the said ..... is an inebriate and is unable to control himself and to manage his affairs.

I accordingly recommend that ..... be detained in the home for inebriates at ..... for a period of .. calendar months, at the end of which time this certificate may be, if necessary, renewed for another period of .. months, or for such longer time as is considered by the authorities of the home and the friends of the patient to be advisable. Signed.....

I agree to the above certificate being issued with reference to .....

Signed.....

10. **Cancer of the Breast.**—Purpura describes, with illustrations, the method devised by Professor Tansini in 1895, to prevent relapses of cancer in the skin and to provide for the healing of the wound by means of a special autoplastic flap in cancer of the breast. He offers additional evidence of the value of this method and quotes Tansini's directions for making the flap as follows: The pedicle is to be about two inches and a half or two inches and three-quarters wide, and, in order to include in it the most important arterial branches, its center is to correspond to a point which must be at one inch and a quarter from the posterior axillary line, two inches from the spine of the scapula, and four inches from the inferior angle of the scapula. The flap is of a long oval shape and of dimensions proportional to the wound which is to be covered, and is to be directed from above down and rather obliquely toward the median line of the back. The anterior edge of the pedicle is to start from the extremity of the axillary wound, and afterward when the flap is brought forward it joins the anterior edge of the wound itself; the posterior edge, which is cut into the skin of the back at about two and a quarter inches from the anterior edge so as to include the emerging point of the arterial branches above mentioned, is to join the posterior edge of the axillary wound. To sum up, Tansini's method consists first in removing all the skin of the breast, compensating the loss of substance by the provision of a perfectly nourished flap which makes it possible to approximate by a lineal suture the skin edges in the region whence it is taken; the flap is formed from skin rarely invaded by cancer, and with its large pedicle abundantly covers the loss of skin of the axilla. The flap allows the arms to move freely.

British Medical Journal, London.

February 29.

11 Multiple Serositis, Illustrated by a Case in Which the Abdomen was Tapped Seventy Times. W. H. White.
12 *Plea for a Neglected Remedy. (Antimony and Potassium Tartrate). E. Smith.
13 *Sudden and Unexpected Deaths. W. W. Wescott.
14 *Unusual Case of Suicide by Suffocation. J. M. Renton.
15 Case of Remarkable Striæ Atrophicæ Due to Cachexia. H. D. Rolleston.
16 *Production of Pseudoarthrosis of the Hip Without Disarticulation of the Head. R. Jones.
17 *Scarlatina Associated with Pyrexia in Apparently Healthy Contact Cases. B. Thornton.
18 *Treatment of Experimental Trypanosomiasis. A. Castellani.
19 Unusual Deformity of the Foot. B. Kilvington.
20 *Note on Dr. Milligan's Paper, "Treatment of Chronic Suppuration of the Middle Ear Without Resort to Radical Mastoid Operation. O. Klotz.
21 Fatal Case of Infectious Jaundice in the Federated Malay States. W. R. Orme.
22 Prevention of Malaria in the Federated Malay States. M. Watson.

12. **A Neglected Remedy.**—Smith maintains the value of antimony in therapeutics, not, however, given as aforetime to depression, whereby it came into bad repute, but in small doses frequently repeated. He speaks highly of it in the early stages of bronchitis and bronchopneumonia, in which stimulant expectorants, like paregoric, squills, ammonium carbonate, etc., are calculated to make the cough harder and the chest tighter. The use of these latter remedies should be reserved strictly for the later stages of the disease. Antimony is useful also in laryngismus stridulus, in frequent doses of 15 or 20 drops (0.90-1.25) of the wine. In doses of 1 or 2 minims (0.06-0.12) of the wine it is a useful addition to the prescription in cases of gastric derangement, on the principle that all nauseating medicines, given in minute doses, lose their irritating properties and become gastric sedatives, e. g., ipecacuanha and zinc sulphate. Antimony is also a hepatic stimulant. In certain inflammatory conditions of the skin, e. g., chronic or acute eczema, it will often succeed where arsenic fails. In the modern use of the drug, however, we have to guard against causing depression, and should limit our efforts to obtaining free secretion from the mucous membrane and skin.

13. **Sudden Death.**—Wescott, from his long experience as one of the coroners for London, finds on tabulating the inquests held by him, that the chief factors in sudden death have been cardiac, 60 per cent.; cerebral, 30 per cent.; pulmonary, 10 per cent., so far as obvious symptoms and gross lesions can show. He considers that there has been an exaggerated idea of the importance of legal postmortems in cases of sudden and violent deaths. In many cases postmortem appearances will show only the presence of so much disease or injury as would render death a probable event from its existence. Or it may show so much disease or injury as would certainly lead to death in the near future. It is only in a minority of cases that such a lesion is found as is incompatible with continued life. He points out how almost impossible it is to say what circumstances must be fatal; e. g., no one can state the amount or the proportion of blood in the entire body the loss of which must inevitably cause death, or how much brain injury must kill. Nevertheless, a definite answer as to what caused death is desirable for several reasons: 1. For personal and family satisfaction, and in regard to life insurance. 2. For legal reasons, so as to be assured that no person is to be blamed for the death. 3. To secure accuracy in death registration. 4. To guide survivors and their medical advisers in their efforts to preserve the lives of other persons. He discusses syncope from hemorrhage, and heart disease, asphyxia and lung disease, coma and brain disease, the kidneys and uremia, and convulsions from various causes. He emphasizes the fact that women will sometimes hide diseases and symptoms with a bashfulness that is almost incredible, and refers to cases in which a medical man, called in during the last hours of life, has been quite unaware that his patient was dying of gangrene, of a strangulated femoral hernia, or bleeding to death from the bowel or from ruptured varices of the vulva. He touches on the subject from the religious standpoint, especially in reference to the occasional brief resumption of life after death had apparently occurred, a matter of the utmost importance to Roman Catholics, in regard to the last rite of the church, and refers to the medicolegal aspects of such cases.

14. **Suicide by Suffocation.**—This case of Renton's was remarkable, over and above the choice of a means for suicide, in the fact that the patient, who had packed two strips of flannel torn from his blanket in balls tightly down his throat, had not even attempted in his last agony to withdraw the last piece. He points out the importance of not overlooking the nose and throat in cases of sudden death.

16. **Pseudarthrosis.**—Jones' method is as follows: A longitudinal incision is made about six inches in length, with the upper border of the trochanter in its center. An incision is made across the base of the trochanter just below the insertion of the gluteal muscles. A slice of the trochanter from this point to its junction with the neck above is sawn or separated by a very wide osteotome and retracted upward. The capsule is then opened and the head separated from the neck with an osteotome. Extension is next put on the femur, and the trochanter with its muscles attached is screwed on to the head of the femur, which remains in the acetabulum. Deep and superficial sutures complete the operation. To avoid impinging on a tender joint, it may be necessary to remove a portion of the neck. In an ankylosed sound joint following sepsis it may be advisable instead of dividing the neck near the acetabulum, to divide it near the trochanter. Jones commends the operation as suitable for patients in advanced years, by saving the shock of disarticulation.

17. **Temperature and Scarlet Fever Contacts.**—Thornton reports a case in which scarlet fever appeared in two pupils in a school of over 300. The two patients were at once isolated and the throats of all the contacts sprayed with a 1 in 2,000 solution of mercury perchlorid. No other cases appeared, and the remaining children appeared in perfect health, save for the fact that in 131 cases out of the remaining 299 an elevation of temperature varying between 99 and 101 F., and lasting for two or three days, was found. There were absolutely no other symptoms or indications of the children being out of sorts. Thornton regards it as more than a coincidence that 131 out of 299 should suffer from elevation of temperature under these circumstances, and suggests that most of these children had received a dose of the scarlatinal poison, but that their powers of resistance were sufficiently great to prevent the occurrence of any of the usual symptoms except the moderate amount of pyrexia. He has great faith in the perchlorid spray as a prophylactic.

18. **Trypanosomiasis.**—Castellani's experiments and observations lead him to conclude, among other things, that quinin cacodylate shows a well-marked trypanocide action in monkeys experimentally inoculated with a strain of trypanosome resembling *T. evansi*. Mercury improves the general condition of inoculated monkeys and frequently causes the temperature to subside to normal. He suggests that quinin cacodylate, alone or with intravenous injections of perchlorid, in large doses, should be tried in sleeping sickness. Quinin cacodylate beside its action on Laveran's parasites, apparently has some action on other protozoa, as in Castellani's experience its use is beneficial in kala-azar and yaws.

20. **Suppuration of the Middle Ear.**—Klotz comments on Milligan's paper on this subject (*Brit. Med. Jour.*, Oct. 12, 1907, abstracted in THE JOURNAL, Nov. 9, 1907, page 1635), and from his experience states that he can not agree with the latter that much reliance can be placed on the cytologic characters of the exudate. He believes that we must still look to the bacteriologic examinations for our evidence as to the nature of the disease and its probable consequences.

Medical Press and Circular, London.

February 19.

23 Diagnosis of Injuries About the Shoulder. J. Dundon.
24 *Convalescence and Its Stages. W. Ewart.
25 Notification of Births Act. E. W. Hope.
26 *A Nontypical Case of Lupus Diagnosed by Calmette's Tuberculin Method. D. Walsh.

24. **Convalescence.**—Ewart describes and figures a "convalescent machine" capable of being adapted to the varied requirements for exercise and rest of all steps of convalescence, as a wheeled chair, a supine couch and exerciser, a prone couch and exerciser, and a walking machine or "crutches on wheels."

26. **The Ocular Tuberculin Reaction in Lupus.**—Walsh reports a case in which a doubtful diagnosis was cleared by the ocular tuberculin reaction. There was a bright red rash on the lower half of the front and sides of the nose, the margins extending half way toward the cheek being fairly well defined and with some outlying patches. There was no scarring, but the skin was studded with numerous small comedones of uniform size. Over the left nasofrontal region was a smooth dull red, slightly raised patch, suggestive of lupus vulgaris. The rash was one of the borderline kind in appearance, one of the transition forms on which French writers lay great stress. A decided reaction occurred twelve hours after the application of the diagnostic tuberculin. There was no reason to suspect a latent tuberculous infection elsewhere.

Clinical Journal, London.

February 26.

27 *Uterine Fibroids Complicating Pregnancy. G. F. Blacker.
28 Indications for Surgical Interference in Acute Abdominal Diseases. F. J. Steward.
29 Pneumococcic Peritonitis. H. D. Rolleston.

27. **Fibroids Complicating Pregnancy.**—Blacker asserts that the dangers of fibroid tumors complicating pregnancy have been considerably exaggerated, and that in the majority of cases labor takes place spontaneously without any complication. The life of the child must be considered as well as that of the mother, and he urges that, whenever possible, pregnancy should be allowed to proceed to full term, Cesarean section being resorted to if necessary. The removal of the uterus with the fetus *in situ* is justifiable only during early pregnancy, when the conditions are such as directly to imperil the life of the mother.

Journal of Obstetrics and Gynecology of the British Empire, London.

February.

30 *Clinical and Pathologic Report on Forty-Nine Solid Ovarian Tumors, of Which Thirty-one Were Fibromata. H. Briggs and T. E. Walker.

31 *Superficial Papilloma of the Ovary. E. Emrys-Roberts.
32 Ovarian Dermoid Retained Two Years Ago in Pelvis After Obstructing Labor. A. Doran.
33 Case of Endothelioma of the Uterus Arising in a Fibromyoma, and Associated with Glandular Carcinoma of the Endometrium. M. H. Phillips.
34 *Technic of Ovariotomy, Especially the Advantages of Removing Ovarian Cysts in Bulk. J. Bland-Sutton.
35 The City of London Hospital. C. Godson.

30. Solid Ovarian Tumors.—Briggs and Walker summarize 488 cases of ovarian tumor, which showed 439 cystic and 49 solid tumors. The 439 cystic showed: adenocystomata, 284; d[illegible], 44; broad ligament cysts, 36; papillomata, 24; carci[illegible]ata, 50; perithelioma (sarcoma), 1. The 49 solid tumors showed: ovarian fibromata, 31; cellular spleen-like tumor, 1; fibromata of the ovarian ligament, 3; surface papilloma, 1; adenomata, 3; solid carcinomata, 8; solid teratoma (myxochondro-sarcoma), 1; round-celled sarcoma, 1. The authors contrast the opposing statements of Griffith and Williamson and Clarence Webster, the former of whom state that "sarcoma of the ovaries is commoner than carcinoma," while the latter says that "the primary sarcoma is less frequent than carcinoma of the ovary," adding that "secondary carcinoma is rare." While Briggs and Walker's figures as regards the rarity of ovarian sarcomata among the 439 cystomata may have to be amended on completion of their investigations thereon, they are certain that in their completed work on the 49 solid tumors there were only 2 ovarian sarcomata against 8 ovarian carcinomata. Of fibromata they find no appreciable differentiation of structure among the diffuse, circumscribed and pedunculated tumors. Encapsulation was the rule. There were only 2 cases of truly bilateral fibromata and they were not diffuse. Weight and density were the striking features. The surfaces were generally smooth, in many coarsely lobulated, in one deeply furrowed, and in one finely lobulated. The relation to the menopause was as follows: Menses past in 7 diffuse, 1 circumscribed and 2 pedunculated; regular in 4 diffuse, 3 circumscribed and 4 pedunculated; irregular in 1 circumscribed; absent in 2 diffuse and 1 circumscribed; diminished in 1 diffuse. They discuss the other rarer forms of tumor. The article is very well illustrated and the cases are tabulated.

31. Superficial Papilloma of the Ovary.—Emrys-Roberts summarizes his paper as follows: 1. Primary superficial papilloma of the ovary is derived from the germinal epithelium and underlying connective tissue stroma. 2. The acini in the periphery of the ovary are derived from ingrowths of the germinal epithelium. 3. The vesicles which form so large a proportion of the papillary projections result from papillæ whose connective tissue cores have undergone edematous degeneration. 4. The secondary deposits arise from disrupted papillæ, the dissemination of secondary deposits is favored by ascites. 5. The collection of fluid in the abdomen represents the secretion of the epithelium forming the outer covering of the growth.

34. Ovariotomy.—Bland-Sutton describes the successive steps that took place in his modification of technic, especially as regards the disuse of the trocar and the use of a long incision. The object in discarding the trocar was to avoid contamination of the peritoneum by the harmful, dirty and septic stuff the cysts often contain, and the possible spreading of infection. The colloid contents are often harmless, but they are occasionally malignant. The long incision entails no danger to the patient; it heals rapidly and soundly, and is less liable to a yielding cicatrix than a short one. For the last ten years it has been the author's practice to remove ovarian cysts entire. He has removed one that weighed eighty pounds. He no longer unites the peritoneum by a continuous suture, but brings the serous, fascial and muscular layers together by interrupted sutures of carefully sterilized silk (No. 4), absolutely free from any trace of antiseptics, and then brings the skin edges together with a continuous suture of thin silk. All buried sutures should be inserted and tied with the hands protected with thoroughly sterilized gloves. Catgut he has discarded for years as a dangerous material incapable of proper sterilization, in spite of the ninety and nine enchantments that are supposed to render it germ free. In passing the interrupted sutures on the supraumbilical portion of the long incisions, it is wise to protect the stomach. He discards all unnecessary instruments, also the waterproof abdominal apron for the patient, the trocar, the cyst forceps, peritoneal forceps, crocodile forceps, big pedicle needle, marine sponges and retractors, apparatus for irrigating the abdominal cavity and glass drainage tubes.

Journal of Tropical Medicine and Hygiene, London.

February 15.

36 Study of the Etiology of Goiter. F. C. Wellman.

Archives générales de Chirurgie, Paris.

February, II, No. 2, pp. 113-212.

37 *Malignant Tumors of Spermatic Cord. Tédénat and J. Martin.
38 Adenoma of the Testicle. M. Chevassu.
39 Serous Cyst in the Mesentery. (Kyste séreux du mésentère.) J. Druebert.

37. Malignant Tumors of Spermatic Cord.—This article gives an illustrated description of a case, and the summaries of twenty-four cases from the literature.

Bulletin de l'Académie de Médecine, Paris.

February 18, LXXII, No. 7, pp. 213-250.

40 *Disinfection of Closed Books. (Désinfection des livres fermés.) Berlioz and Lucas-Championnière.
41 Specific Reaction to Tuberculin Rubbed into Shaved Skin. (Nouveau mode de produire chez l'homme tuberculeux la réaction de la peau à l'aide de la tuberculine.) Lignières and H. Benjamin.
42 Discussion on Arsenical Insecticides. (Emploi des arsénicaux en agriculture.)
43 *Reduction of Intake of Fluids in Kidney Disease. (Réduction des liquides dans le mal de Bright.) Widal.

40. Practical Disinfection of Books.—Berlioz describes experiments which demonstrated that tubercle bacilli and anthrax spores placed on the inner margin of the leaves of books were destroyed by his method of disinfection with heat up to 90 or 95 C. (190-203 F.), and fumes of formic and ethylic aldehyd. These results were constant with books under 300 pages, with the books closed, exposed to the process for two hours. Lucas-Championnière at Paris, Macé at Nancy and Papin at Angers have been testing the process and found that pus and fecal matters placed in books of 1,300 pages, closed, were sterilized, and even anthrax spores in a closed volume of 1,000 pages. The books, paper and binding are said not to be injured in the least. The method will even serve to preserve a book threatened with some of the ills to which books kept in unhygienic conditions are liable. Berlioz is professor of bacteriology at Grenoble, France. No further details are given of the technic in this communication.

43. Reduction of Ingestion of Fluids in Kidney Disease.—Widal regards the scales as a most important aid in the treatment of patients with infiltration of the tissues. Systematic weighing not only informs the physician in regard to the visible edema and its extent, but it reveals accumulation of fluid long before it becomes apparent externally. The fluctuations in the weight show the necessity for supervision of the intake of fluids, and this is imperative, he thinks, in every case of interstitial nephritis, whether there is appreciable edema or not. As a rule, the patient can take care of two quarts of fluid, but in some cases he does much better if the amount ingested is reduced to three pints or even one quart in the twenty-four hours. The diuresis has no significance unless it can be compared with the amount of fluids ingested. Restriction of the intake may prove useful in prophylaxis of further trouble in nephritis, and also in the course of cardiac affections with impending asystoly. Even with adequate compensation the physician should never neglect the supervision of the amount of fluids to be allowed the patient.

Grèce Médicale, Syra, Greece.

July 15, 1907, IX, No. 14, pp. 25-28.

44 *Malaria in Greece. (Paludisme dans le département d'Attique.) J. P. Cardamatis. Commenced in No. 11.

January 1, X, No. 1, pp. 1-4.

45 *Neuroses of the Abdominal Sympathetic or Solar System. T. Triantaphyllides. Commenced in No. 15, vol. ix.

44. The Campaign Against Malaria in Greece.—Cardamatis' report is restricted to the province of Attica. He reviews the experiences with malaria during the last fifteen years, the

total direct mortality from malaria being nearly 3 per cent. of all deaths. The largest number of cases occur in July, with August next, and then June. The extensive marshes along the coast which have more or less salt water do not seem to offer favorable breeding places for mosquitoes, and there are comparatively few cases of malaria in these districts. The chief endemic foci are around the small wet spots formed by accumulating rain water or springs, and the malaria is much severer in type than near the salt or mixed marshes. The influence of the small breeding places for mosquitoes is shown in certain districts where there are no marshes, but merely small pools formed in the dry bed of a river. No person contracted malaria in the endemic foci who took systematically 7.5 grains of quinin hydrochlorate, hydrochlorid or sulphate every alternate day. In treatment the quinin was given by injections repeated daily for twelve days, then suspended for four days and resumed for two days, after which two consecutive injections were given each week until the end of the third month. The doses were 1 gm. (15 grains) for adults the first three days, with half this amount afterward. Even in the severest cases—and he encountered 50 cases of pernicious malaria and 143 of malarial cachexia in a total of 2,506 cases during 1905—this was always sufficient, and recurrences were never observed in patients who took the three-months course, while they were the rule without it. He noticed that the attacks commenced between 9 and 10 a. m. in case of primary acute infection, while in the chronic cases they came on in the afternoon between the hours of 3 and 5.

45. **Neuroses of the Abdominal Sympathetic or Solar System.**—Triantaphyllides practices at Batoum, between the Black and Caspian seas, and states that neuroses of the abdominal sympathetic system are extremely frequent among those predisposed by the prevalent malaria. These neuroses may be from disturbances in the sympathetic system in the abdomen, manifested by neuralgias and functional disorder in the organs innervated by this system. Another type of disturbances is from radiation by way of the splanchnic nerves to the lung and heart plexuses, entailing dyspnea and functional heart disturbances, palpitations, arrhythmia, false angina pectoris, etc. The third and last type of these neuroses are those of reflex nature, vasomotor disturbances, urticaria and the neurasthenic condition. He describes a number of examples of each type and the differential points, while emphasizing the importance of quinin and change of climate in treatment.

Presse Médicale, Paris.

February 19, XVI. No. 15, pp. 113-120.

46 *The Diatheses. The Personal Factor in Diseases. Sir Dyce Duckworth.

February 22, No. 16, pp. 121-128.

47 Sleeping Sickness in Senegal and the Mode of Transmission to Man. L. d'Anfreville

48 *Injections of Glycolytic Ferments in Treatment of Cancer. R. Odier.

49 *Therapeutic Action of Radium in Cutaneous Tuberculosis. L. Wickham and Degrais.

February 26, No. 17, pp. 129-136.

50 *Remote Results of Removal of Thyroid in Exophthalmic Goiter. (Strumectomie dans la maladie de Basedow.) Garré.

51 The Great Pathologic Syndromes. M. Labbé.

46. **The Diatheses: the Personal Factor in Disease.**—Duckworth concluded his address with the remark that bacteriology is crowding out too much the materia medica. The only two great questions at the bedside are: "What is the matter with the patient?" and "What will do him good?" We are too much disposed to forget the second question, he continued, and to experiment with new synthetic remedies and neglect the old, tried ones. He asked: "Are we not allowing ourselves to drift into the position of abstract scientists, gradually losing our proper relations with the patient as skilful medical artists?" He deplored as a dangerous mistake the modern contempt for the old notion of the diatheses; four should certainly be recognized to-day, the arthritic, the scrofulous or lymphatic, the nervous and the bilious. The soil is of importance as well as the seed. The régime appropriate for persons of the lymphatic diathesis is bad for those of the arthritic diathesis and vice versa. In persons of the bilious diathesis no drug can take the place of mercury, while the scrofulous can scarcely tolerate it. He is convinced that further research on the opsonic index will confirm this old conception of the diatheses. The arthritic diathesis includes most persons of the "sanguine temperament" and one of its most important characteristics is the special antagonism of the tissues for the tubercle bacillus. The more rheumatic or gouty the patient, the less tendency to tuberculosis. All his extensive experience has confirmed the antagonism between these two conditions; if it is not absolute, at least it is very pronounced. In the rare cases in which tuberculosis does develop in a rheumatic or gouty individual, it makes slow progress, with frequent remissions, encountering a vigorous resistance. In cases of this kind an inherited scrofulous or lymphatic strain can usually be discovered accompanying the arthritic diathesis.

48. **Injection of Glycolytic Ferments in Treatment of Cancer.**—Odier describes his method of injecting glycolytic ferments in treatment of cancer. They are obtained from the muscles, liver and pancreas of sheep, calves and beef, and are injected in the buttocks. They seem to act on the cancer, he declares, wherever it may be located. The method is based on the high specific gravity of the blood in cancer patients, which he ascribes to the enfeeblement of the glycolytic ferment in the blood. When this glycolytic ferment is injected the malignant tumor reveals its presence by a transient, painful hypertrophy and then subsides more or less completely. He cites a number of typical examples, among them that of a man of 72 with vague signs of cancer of the stomach. Injection of 2 c.c. of the glycolytic ferment induced pain in the pyloric region, where a small tumor could then be palpated. It was promptly excised, but the patient continued to decline in health until a systematic course of injections of glycolytic ferment was commenced, during which prompt benefit became apparent. The patient gained nearly 25 pounds in a few months, and has been in good health during the eleven months since. A number of instances of this kind confirm him in his belief that cancer is a constitutional rather than a local affection. It attracts the X substance or "cancerogene" produced uninterruptedly by the organism, and medical efforts should be directed to exhaust the production of this cancerogene. The glycolytic ferment seems to have a direct or indirect destructive action on this cancerogene, as glycogen seems to be indispensable to the growth of a malignant tumor. Cholesterin also seems to be indispensable to the growth of cancer. It apparently attaches itself to the cancer cells, abandoning the serum. He prepares the glycolytic ferment by grinding and triturating one part by weight of muscle—freed from fat and tendons—of sheep, calf or beef (young animals), with three parts of pancreas. The mass is then mixed with glycerin and kept at a temperature of about 67 F. for twenty-four hours. The mass is then spread on fine gauze and twice the volume of distilled water is added. The whole is then filtered three times at least through moist paper and finally through a Chamberland B. filter. The solution thus obtained is injected into the buttocks. Some patients can stand only 1 c.c., repeated in a week or two, while others tolerate up to 3 c.c. a day. The limit of tolerance seems to be determined by the malignancy of the tumor. When very virulent it is impossible to inject a dose adequate for actual arrest of the malignant disease, although great improvement follows the dosage allowable. He warns that arsenic should never be given with the course of ferments, and that the injections of the ferments should never be abruptly discontinued as serious disturbances may follow.

49. **Radium in Treatment of Cutaneous Tuberculosis.**—Wickham and Degrais state that the results obtained with radium treatment of tuberculous cutaneous affections justify high hopes. The results of injection of solutions of salts of radium have also proved encouraging. One great advantage of radium is that it can be applied in a form to adapt it to the part to be treated. This is particularly useful in case of lupus of the mucous membranes. They describe their experience during nearly three years and the lessons learned in regard to the indications in the various forms of lupus and ulcerative scrofuloderma. The entire course may be completed in two or three days. The main points are to apply the radium to act power-

fully, deep and over a large area, with prolonged supervision of the resulting cicatrix. There does not seem to be any elective action on the lupous cells, which might be an indication for weak dosage.

50. Ultimate Results of Strumectomy in Exophthalmic Goiter.—Garré reports operative treatment in 35 cases of exophthalmic goiter. Recent examination of 20 of the patients after an interval of five years or more has shown that the exophthalmos has disappeared in 11 or 12 and was much modified in others, persisting unmodified in only 5 patients. The tachycardia had disappeared in all but 4. Nervous disturbances were still observed in about 22 of the patients; 10 were in excellent general health. The compiled statistics from various clinics in respect to operative treatment of exophthalmic goiter show cures or marked improvement in 85 per cent. At the autopsies of 56 exophthalmic goiter patients, the thymus was found very much enlarged in 77 per cent.—a proportion entirely too large to be a mere coincidence, he declares.

Semaine Médicale, Paris.

February 19, XXVIII, No. 8, pp. 85-96.

52 *What is to be Understood by Alkalinity of the Blood? (Alcalinité du sang.) L. Cheinisse.
53 *New Sign of Stricture in Esophagus. (Signe non encore décrit des rétrécissements de l'œsophage.) P. M. Revidtzev.

February 26, No. 9, pp. 97-108.

54 Reality and Mechanism of True Duplication of First Sound of Heart. (Dédoublement vrai du premier bruit du cœur.) L. Bard.

52. What Is Meant by the Alkalinity of the Blood?—Cheinisse reviews the knowledge recently acquired in regard to the blood, especially its concentration in hydrogen and hydroxyl ions. Benedict concludes from his research that in diabetic coma there is no actual acid intoxication, the blood persisting neutral even in case of abnormal production of acids, as he found the proportion of hydroxyl ions constantly approximating normal.

53. Sign of Stenosis of the Esophagus.—Auscultation reveals two sounds when a mouthful of fluid is swallowed, the sound made by the muscles as they swallow the fluid, and, about seven seconds later, the sound of the fluid as it is propelled into the stomach by the peristaltic movements of the lower part of the esophagus. Meltzer calls these the *Durchspritzungsgeräusch* and the *Durchpressungsgeräusch*. In stenosis of the esophagus some of the fluid swallowed is retained above the stricture. If the patient then makes another swallowing movement, but without really swallowing anything, not even saliva, some of the fluid retained by the stricture will then be propelled into the stomach and the second sound will be heard again and as many times as the maneuver is repeated, until all the fluid retained by the stricture has been passed along or is definitely retained by the stenosis. This sign may reveal stenosis before it is suggested by anything else. Attention is called to it by Revidtzev of Moscow.

Deutsche medizinische Wochenschrift, Berlin.

February 20, XXXIV, No. 8, pp. 313-360.

55 *Pupil Sign; Hysterical Immobility of the Pupils. (Eigenartige Pupillenphänomen.) E. Redlich.
56 Alcohol in Treatment of Phthiriasis. H. Oppenheim.
57 *Ocular Reaction to Tuberculin. (Ophthalmoreaktion.) A. Plehn. Id. J. Citron.
58 Treatment of Acute Attacks of Gout. (Behandlung des akuten Gichtanfalls.) Becker.
59 Alcohol for Disinfection of the Hands. Schumburg.
60 *Severe Chronic Inflammation of the Colon. (Colitis chronica gravis.) T. Rosenheim. Commenced in No. 7.
61 *Treatment of Acute Threatening Hemorrhage in Gastric Ulcer. (Behandlung der akut lebensgefährlich Blutungen bei Ulcus ventriculi.) W. Braun.
62 Abscesses and Removal of the Spleen. (Milzchirurgie.) Riese.

55. Immobility of the Pupil in Hysteria.—Redlich has noticed that the pupil became much dilated in hysteric and epileptic patients when they were engaged in hard muscular work. During this dilatation of the pupils it became more or less insensible to light, while the convergence reaction remained unimpaired. He thinks that this phenomenon is probably due to stimulation of the sympathetic nerve, and that it throws light on the immobility of the pupil in certain cases of hysteria and voluntary dilatation of the pupil as probably resulting from the same mechanism.

57. Ocular Reaction to Tuberculin.—Plehn's experience with instillation of tuberculin in the eye speaks against the specific nature of the reaction observed. He obtained a positive reaction in 2 out of 5 cases of typhoid; in 2 out of 5 patients with scarlet fever; in 6 out of 12 with articular rheumatism; in 3 out of 6 with acute bronchitis, and in 3 cases of enteritis. None of these patients presented the slightest indication of tuberculosis. Several patients had unpleasantly severe reactions, leaving transient inflammation. One young pregnant woman with pleurisy with effusion gave a positive response to instillation of a 1 per cent. solution in one eye, but the result was negative when the other eye was instilled two weeks later with a 2 per cent. solution. One patient with articular rheumatism gave a positive response; the rheumatism promptly subsided under the salicylates. Two weeks later the rheumatism recurred, and the conjunctivitis flared up again, without tuberculin having been instilled or administered in any form during the interval. Citron has had unusually extensive experience with the new differential reactions, and he found that scrofulous individuals react much more readily than others, and consequently the concentration used for them should be one-fourth of the strength used for others. The subcutaneous and conjunctival reactions are liable to have a reinforcing influence on each other. He urges restricting the ocular reaction to the cases in which other tests fail. He instils one drop of a 2 per cent. solution of Koch's old tuberculin into the left eye. In case of a positive reaction, to attain greater certainty, one drop of a 1 per cent. solution is instilled in the right eye. In case of negative response, one drop of a 4 per cent. solution is instilled in the right eye.

60. Severe, Chronic Inflammation of the Colon.—Rosenheim reports the cure of a case of long persisting, refractory colitis by treatment addressed to the stomach alone. The subacid gastritis with its consequences had evidently been responsible for the intestinal trouble. The clinical picture was about the same in three other patients. All were comparatively young, and the manifestations of the severe colitis alternated with intervals of comparative health followed by return of the great debility, persisting symptoms on the part of the intestines, fever and complicating affections, such as swelling of the joints or rectal fistula. Bacteriologic findings excluded dysentery; the severity of the process was evidently due to endogenic autoinfection or intoxication with secondary bacterial proliferation. Calomel proved useful in one case, restriction to milk and carbohydrates in another, and treatment of the gastritis in the first patient. Operative measures brought relief in two cases, but not a radical cure, as the healing of the fistulas left an obstruction in the bowel. The calomel in these severe cases was given in the dose of 0.02 gm. (4 grains) ten or twelve times a day for three days, as Plehn has recommended for dysentery.

61. Operative Treatment of Acute Hemorrhage from Gastric Ulcer.—Braun reports a case of fatal hemorrhage from a gastric ulcer in which he exposed the stomach but found it firmly fastened, and as the patient collapsed nothing further was attempted. In a second, similar case, after exposure of the stomach he ligated the afferent vessels in the vicinity of the gastric lesion, concluding with jejunostomy, and the patient was restored to health. Experiments on dogs and on the cadaver confirmed the feasibility and advantages of thus shutting off the blood supply from the part. The stomach of dogs tolerated this intervention without necrosis, even when the blood supply was shut off from an extensive area. Applying these findings to man, it seems probable that the best results can be obtained in case of ulcer on the lesser curvature, with or without opening the stomach. The simplicity of the procedure commends it for emergency cases in which excision of the ulcer would otherwise be considered. In acute and chronic recurring forms of gastric hemorrhage, he says, gastroenterostomy should be the routine technic.

Medizinische Klinik, Berlin.

February 23, IV, No. 8, pp. 251-282.

63 Processes of Compensation in the Circulation. (Kompensationsvorgänge im Kreislauf.) P. Morawitz.
64 *Stasis Hyperemia as a Means of Promoting Secretion of Milk. (Stauungshyperämie als ein die Milchsekretion beförderndes Mittel.) R. T. Jaschke.

65 Tabes in the First Years After Infection. Galewsky.
66 Treatment of Anthrax. (Milzbrand.) O. Schwab.
67 Compression by Adhesive Plaster Bandage in Treatment of Pneumothorax, Hemoptysis, etc. (Pneumothorax und Heftpflasterverband.) O. M. Niedner.
68 Cure of Leprosy. (Heilung der Lepra.) K. Sakurane.
69 Inoculation of Rabbits with Syphilis. (Bemerkenswerte Resultate der Syphilisimpfung beim Kaninchen.) C. Gouven.
70 Importance of Periosteum in Transplantation of Bone. (Lehre von der freien Knochentransplantation.) G. Aschausen.

64. Stasis Hyperemia as Means to Promote Secretion of Milk.—Jaschke has found that fifteen minutes' application of a Bier suction glass to the breast, with moderate suction, the technic being the same as for treatment of mastitis, frequently has a remarkable effect in promoting the secretion of milk. He applies the glass for from fifteen to thirty minutes if more energetic measures are desired. A moderate vacuum induces arterial hyperemia, while stronger applications induce venous hyperemia. The former alone may prove sufficient in some cases, while other women may require the more energetic measures. The stasis hyperemia certainly increases the secretion of milk, but further experience is needed, he says, to establish the indications for its application. Several typical instances are cited in detail from his experience with it at Heidelberg.

Münchener medizinische Wochenschrift.

February 18, LV, No. 7, pp. 321-376.

71 *Inoculation of Animals for Diagnosis of Tuberculous Affections. (Der Tierversuch bei der Diagnose tuberkulöser Erkrankung.) A. Weber.
72 *Cradle and Creeping Infection of Infants with Tuberculosis. (Häufigkeit der Tuberkulose und die Beiden Haupzeitpunkte der Ansteckung mit derselben im Säuglingsalter.) P. Sehlbach.
73 *Precipitation of Cholesterin in Bile and Origin of Gallstones. (Ausfall des Cholesterins in der Galle.) Bacmeister.
74 Influenza Bacilli in Bronchi. F. Wohlwill.
75 *Zinc Chlorid for Carcinoma. Phenol for Endometritis. O. von Herff.
76 Improved Vaginal Douche Tip. (Verbessertes Ansatzstuck an den Irrigator zur Scheidenspülung.) Scheunemann.
77 Value of Arthrodesis. O. Vulpius.
78 Tetanus After Gynecologic Operations. P. Zacharias.
79 Carbonated Hand and Foot Baths. (Kohlensaure Hand- und Fussbäder.) O. Pototzky.
80 *Physicians' Help to Quacks. (Aerztliche Unterstützung der Kurpruscherei.) H. Kantor.

71. Inoculation of Animals in Diagnosis of Tuberculosis.—Weber recommends excision of one of the regional lymph glands of the guinea-pig about sixteen days after it has been inoculated in the abdomen with the suspected tuberculous material. The regional glands generally become palpable by this time in case of positive results, and the animal does not suffer from this insignificant operation. The more abundant the bacilli in the material injected, the earlier the infection becomes manifest. He does not approve of Bloch's suggestion to crush the regional glands with the fingers when the suspected material is injected, as this induces inflammation and makes the findings misleading, especially if the bacilli were scanty in the suspected material. The results of inoculation of animals are supremely important in suspected tuberculosis of the kidneys, as there is no chance for confusion with smegma bacilli in this case.

72. Frequency of Tuberculosis in Infants, and Chief Periods of Infection.—Sehlbach writes from Czerny's children's clinic at Breslau to report the findings in respect to tuberculosis in 171 infant cadavers. They demonstrate that infants contract and succumb to tuberculosis according to two periodic waves. The first is what he calls "cradle infection," the infants contracting the disease during the first three months of life and promptly succumbing. There is then a lull, the next wave corresponding to the period when the children learn to creep. Another point brought out by his statistics is that artificially fed infants succumb much earlier to the infection; next come the infants with mixed feeding, and, lastly, the breast-fed infants. The latter exhibit considerably higher resisting powers than the other infants, as shown by the later period at which they succumb to the wave of infection that overwhelmed them in the cradle or as they creep on the floor.

73. See editorial in THE JOURNAL, March, 14, p. 880.

75. Zinc Chlorid or Phenol in Treatment of Uterine Affections.—O. von Herff states that he has had occasion to observe serious injury done to the uterus by cauterization with zinc chlorid in endometritis. Still better results, without injury, can be obtained with a 50 to 90 per cent. alcoholic solution of carbolic acid, which is his preference for treatment of endometritis. When an astringent or iodin action is desired, he uses a mixture of 5 parts alumnol with 50 parts each of alcohol and tincture of iodin. This can be applied as often as every second day. He much prefers this to formalin. With the same energy with which he warns against zinc chlorid for endometritis he advocates its use in case of inoperable uterine cancer. The zinc chlorid applied four or five days after curetting will give relief for a long period, and has been known to effect a permanent cure. He applies it in the form of a paste made of equal parts of zinc chlorid and starch, with a few drops of glycerin. This is spread on a cotton wad shaped to fit the cavity. It is removed after four, six or eight hours. He has never observed any inconveniences from its use in this way, although he has applied it in hundreds of cases. As the eschar is thrown off hemorrhage may occasionally be observed, but this is liable with any measure. He has never observed symptoms of poisoning from its use in this way, and thinks that other causes were probably responsible for the symptoms in the two cases of alleged poisoning reported by Hofmeier.

80. How Physicians Help Nostrum Vendors.—Dr. Heinrich Kantor of Warnsdorf in Bohemia has long been waging energetic warfare against quackery in general, and publishes a journal called *Gesundheitslehrer—Guide to Health*, or *Health Teacher*—which is written in popular style and has recently been accepted as the official organ of the International Antiquackery Society. L. Bauer of Kötzschenbroda, Germany, who does a large business in the sale of "djoeat," a remedy advertised as a sure cure for diabetes, objected to criticisms in Kantor's journal, and brought suit against him. He has done this four times, and although Kantor issued victorious from each suit, yet they cost him a great deal of money. His experience in these suits has been very discouraging, he says, as the evidence showed that many registered physicians inadvertently lend their aid to irregulars and help to pour money into the latter's coffers. He here appeals to physicians to be more guarded when judging commercial preparations and not to allow themselves to be deceived into ascribing to the remedy the benefit which is almost certain to follow regulation of the diet and hygienic measures in general, which form part of the "method" of many quacks. In 1904 the German authorities forbade the further sale of "djoeat," but Bauer merely changed the name to "antidiabeticum," and continued its exploitation on a still larger scale. It is said that he has changed the formula a number of times during the last few years, one of the latest being submitted to the Austrian authorities when applying for a patent, in 1905. The ingredients of the remedy were then said to be kola, jambul and "guru nuts." Another formula stated the ingredients as "quinin, syzigium jambolanum, salicylic acid and linseed." Jambul has long been used as a remedy in diabetes, and some claim good results with it. Bauer himself states that the kola is the main active ingredient of his remedy. Dappe, Külz and von Jaksch have given "antidiabeticum" a thorough trial in diabetes, but were unable to detect beneficial action from it. In the suits against Kantor he amazed the judge and spectators by proving that Bauer's much vaunted rules for the diet were taken bodily from von Noorden's article on diabetes in a familiar text-book. In a suit brought by Bauer against von Noorden, himself, the latter stated: "It is difficult even for a physician without wide experience in treating diabetes and most certainly is it difficult for the laity to determine how large a proportion of the benefit in the treatment of diabetes belongs to the drugs used and how much to the dietetic regulations accompanying them. The drug-loving public—and I include physicians under this heading—is inclined to push the action of the medicines into the foreground and to forget that of the other measures. The consequence is that testimony to the effect of the medicine is offered which is false, although subjectively true." Kantor remarks that physicians are liable to be misled into objectively false testimony by the reading matter served up to them in certain medical journals inspired by shrewd adver-

tising on the part of the irregulars. He adds: "It is sad enough that the commercial proprietaries are able to find any complaisant medical journals and authors for medical write-ups, but that rank, naked quackery finds the columns of part of the medical press open to it should rouse the profession to a thorough cleaning up with an iron broom." He was not surprised to have testimony presented by Bauer from the authors of known medical write-ups, but he was disheartened to find that testimonials were presented from thirty reputable German physicians endorsing the efficacy of "antidiabeticum," as they had used it on themselves or on members of their families or on patients. None of their testimonials was more than a brief line or so, and none of these physicians seems to have realized that he was giving his testimony to drugs which had ever before been used in the treatment of diabetes. None appended a report of a case, and yet the assertions of "marvelous cures" were frequent. The physician who testified with such admiration that "djoeat" had in four days cleared his patient's urine of sugar had evidently forgotten or did not know that thousands of diabetics every day have their urine cleared of sugar merely by refraining from carbohydrates, which his patient had also done. The fifty patients presented by Bauer as "cured" have been traced later by Kantor, who found that 12 per cent. of them have already died—even among this group of selected cases. He adds that in all his published criticisms of Bauer he was careful to refer exclusively to his advertising methods, never criticising his method of treatment, to avoid further legal complications. He appeals to physicians to send a postal card forbidding the further sending of a journal which carries advertisements of nostrums and irregulars. When the advertisers find that physicians refuse to have the journals sent to them, then they will discontinue their advertising in such journals. It is thus in the power of physicians to take the wind out of the sails of these venal journals and arrest their course.

Zentralblatt für Chirurgie, Leipsic.

February 22, XXXV, No. 8, pp. 217-248.

81 Diversion of the Blood from the Vena Cava into the Portal Vein by Termino-lateral Anastomosis of the Vessels. (Ueberleitung des Vena Cava-Blutes in die Vena Portæ mittels terminolateraler Gefässanastomose.) L. Meyer.
82 Modification of Roux's Esophago-jejuno-gastrostomy. P. Herzen.
83 Plastic Formation of New Esophagus. Wullstein.
84 *Rovsing's Sign: Production of Typical Pain at McBurney's Point by Indirect Means. C. Lauenstein.

February 29, No. 9, pp. 249-288.

85 Silver Catgut and Silver Silk. (Silberseide, etc.) B. Credé.
86 Treatment of Spondylitis. A. C. Wiener.

84. Production of Typical Pain at McBurney's Point by Indirect Means.—Lauenstein relates that Rovsing's sign was found in a case of cholecystitis. It is not therefore pathognomonic for appendicitis, but merely indicates some circumscribed inflammatory process in the vicinity of the colon. The sign was described in these columns Nov. 30, 1907, page 1882.

Zentralblatt für Gynäkologie, Leipsic.

February 22, XXXII, No. 8, pp. 233-280.

87 *Special Posture to Facilitate Delivery. (Erleichterung der Austrittsbewegung durch eine besondere Haltung der Gebärenden.) M. Samuel.
88 Origin of Placenta Marginata and Placenta Circumvallata. P. Sfameni.
89 Fifty Cases of Transverse Incision of Fascia Above Symphysis According to Pfannenstiel. (Suprasymphysärer Fascienquerschnitt.) A. Heisted.
90 *Cesarean Section, with Bilateral Ovarian Carcinoma. (Kaiserschnitt, etc., wegen Gebärunmöglichkeit infolge doppelseitigen Ovarialkarzinoms.) F. Weisswange.
91 Abdominal Pregnancy at Term, with Good Results for Mother and Child. (Bauchhöhlenschwangerschaft.) Weiss.
92 Etiology of Puerperal Retroflexion of the Uterus. L. Pincus.
93 *Ventrofixation of Round Ligaments without Touching the Cornua Uteri. Quadflieg.

February 29, No. 9, pp. 281-312.

94 *Ultimate Outcome of Plastic Operation on Pelvis. (Pelvioplastik.) B. Credé.
95 Recovery After Decapsulation of Kidneys in Case of Severe Puerperal Eclampsia. R. Asch.
96 Diagnosis and Treatment of Ureters with Abnormal Outlet. (Abnorm ausmündender vollwertiger Ureteren.) A. Westhoff.
97 "Double-breasted" Silk Suture of the Fascia in Laparotomies. (Eine neue Flächennaht der Fascie bei Laparotomie.) C. D. Josephson.
98 Atmocausis. F. Weisswange.
99 Cyst in Omentum. (Omentalcyste.) W. Holleman.

87. Posture to Facilitate Delivery.—Samuel states that a patient in labor with her first child was placed in a position so that forceps could be applied to aid the difficult delivery. She lay across the bed with her legs flexed on the abdomen while the nurse was bringing two chairs for her feet. At that moment a labor pain came on and the woman seized her maximal flexed legs just above the knees and pulled on them as she strained, the head at once making its appearance. This was the more remarkable, as the sagittal suture before had presented somewhat unfavorably and the labor pains had not had much effect. This posture evidently facilitates delivery, as it reinforces the expulsive action of the labor contractions, while at the same time the diameter of the pelvic outlet is enlarged. Since then Samuel has applied this posture in all his cases of difficult delivery and has frequently thus been able to dispense with forceps. The woman pulls on her legs just above the knees, the thighs flexed to the utmost, and she raises her head a little at the same time. In frontal and transverse presentation space is gained for rotation of the head, and the posture is also unusually favorable for face presentation and with contracted pelvis.

90. Cesarean Section with Bilateral Ovarian Carcinoma.—The child in this case was healthy and unusually well developed, and the mother showed no signs of cachexia, although both ovaries were found transformed into large knobby malignant tumors and the vicinity was studded with metastases. The case shows that even the slightest scrap left of normally functioning ovarian tissue allows conception and pregnancy.

93. Ventrofixation of Round Ligaments.—Quadflieg has treated twenty-three patients with displacement of the uterus by fastening the round ligaments to the anterior wall of the abdomen, but with care to leave the cornua of the uterus intact. The uterus is thus suspended and hangs free so that its enlargement is not interfered with. He uses No. 3 silk.

94. Pelvioplastica.—Credé applied this term to the operation he performed on a patient in 1906 by which the pelvis was permanently enlarged. Recent examination of the patient has shown that the ultimate results have exceeded all anticipations, there being no interference with the gait or other disturbance, while the pelvis has been permanently enlarged by 2 cm. He advises this technic in case of a contracted pelvis, urging its application before or early in the pregnancy. His technic was summarized in THE JOURNAL, Oct. 6, 1906, page 1142.

Policlinico, Rome.

February, XV, Medical Section, No. 2, pp. 49-96.

100 *Orthodiagraphic Roentgen Examination of the Heart. (Ortodiagrafia nelle diagnosi delle malattie di cuore.) G. Galli.
101 *Idiopathic Paroxysmal Tachycardia. U. Deganello.
102 *Research on Coagulation of Blood in Various Morbid Conditions. (Metodo per lo studio della coagulazione del sangue.) P. Ciuffini.
103 Intravenous Injections of Collargol in Endocarditis and Gonorrheal Rheumatism. R. Ricci.

February 16, Practical Section, No. 7, pp. 197-228.

104 *Experiences with Spinal Anesthesia. (Sulla anesthesia rachistovainica.) F. Feliziani.

100. Orthodiagraphy of the Heart.—This term is applied to repeated parallel application of the Roentgen rays, disregarding all but the central rays. Galli gives a number of illustrations of the outlines of the heart and lungs obtained by this means, the findings showing characteristic features for various heart defects, etc., the displacement of the apex during inspiration and expiration, and the displacement of the whole heart as the patient reclines and its shortening as he stands. Galli noticed that in multiparæ the heart was larger than normal, and that each individual seems to have his own special heart. He was unable to determine any special normal standard.

101. Idiopathic Paroxysmal Tachycardia.—Deganello discusses the physiopathology and origin of tachycardia in general and of the paroxysmal form in particular. One of the characteristics of essential paroxysmal tachycardia, he says, is the sudden duplication or quadruplication of the pulse rate during the attacks. There seems to be a certain analogy between this twofold or fourfold numerical increase in the pulse and the same duplication or quadruplication observed in the isolated heart of the frog under the influence of thermic or elec-

tric stimuli. The increase seems to be intimately connected with some alteration (exaltation) of certain fundamental functions of the cardiac muscle cell—enhanced excitability and conductibility. The tachycardia is started by some extra stimulus acting on the myocardium in this state of enhanced excitability and conductibility. This extra stimulus may result from the action of some chemical, such as tobacco or alcohol, or some acute poisoning, or it may be of mechanical origin, from increased intracardiac pressure in consequence of excessive exertion, or it may be of indirect nervous origin. He thus distinguishes between essential paroxysmal tachycardia resulting from changes in the extracardiac innervation and those in the intracardiac innervation. In a typical case described, the patient was an epileptic, and the pulse increased from 90 to 180 during the attacks, while the blood pressure dropped by 30 mm. mercury. There was nothing to indicate organic disease of the heart, but during the attacks the ventricles spread a trifle wider.

102. **Method for Studying Coagulation of the Blood.**—Ciuffini reports conditions in regard to coagulation of the blood in various affections. He found conditions normal in cases of cirrhosis of the liver, chronic jaundice and simple tertian malaria. The coagulating process was increased most in typhoid fever, and was most retarded in hemorrhagic purpura, estivo-autumnal malaria and malignant disease of the liver. His method of testing the coagulation is similar to the technic of the hemolytic blood test: Ten smooth glass test tubes, 8 cm. long, with an inner diameter of 8 mm., the glass walls 0.5 mm. thick, are placed upright in a standard, and 1 c.c. of a 0.9 per cent. saline solution is placed in each tube. One drop of blood drawn from a vein in the arm is added to the first tube, 2 drops to the second, 3 to the third, and so on. Each tube is then closed with a rubber stopper and the contents mixed. The minute when the blood is added to each tube and the minute when coagulation occurs is recorded for each tube. The normal average was found to be from 7 to 10 minutes in the tubes with from 7 to 10 drops. In the tubes with from 3 to 6 drops the average was between 12 and 25 minutes. He urges others who are studying the coagulation of the blood to adopt this technic, as the lack of uniformity in the technic has led to contradictory findings in much of the research on record. His room temperature was 76 to 86 F.

104. **Spinal Anesthesia with Stovain.**—Feliziani reports experiences with spinal anesthesia in 203 cases. The temperature rose in 60 per cent. of the cases, almost always accompanied by headache, the latter in a few cases persisting very severe for ten days. In 30 per cent. of the cases there was intense pain in the spine, generally vanishing in a few days, but in one case persisting for five days, requiring morphin. Another patient had, in addition, severe neuralgia in the legs, continuing for ten days. In 4 or 5 cases the motor relaxation did not subside as usual, but persisted for several days. Paresis of the bladder and rectum was observed in 40 per cent. of the cases, generally vanishing by the fourth or fifth day, but in a number of patients the ischuria persisted for ten days or longer and the bowels were sluggish. In one patient the paralysis of the bladder persisted and cystitis developed during the repeated catheterizations; four months elapsed before the bladder and rectal functions had returned to normal under vigorous measures in the hospital. One patient, a young man, presented paroxysmal hematuria after spinal anesthesia for a herniotomy. The patient's general health did not suffer, and the hematuria did not recur after the second week. During the course of the spinal anesthesia, pallor, anguish, small pulse and retching were observed in several cases, but transient in all. Ten patients were delirious, in one case amounting to hypochondriac delirium with ideas of persecution. One robust man of 40 had transient collapse with brief convulsions. Paralysis of the respiratory muscles was observed in one elderly man, with pallor and vomiting soon after the puncture. Active artificial respiration with inhalation of oxygen and injections of ether and strychnin restored him. Feliziani injected 1 c.c. of a 10 per cent. solution of stovain and sodium chlorid—equal parts of each—with a little lactic acid, the whole mixed with the patient's own cerebrospinal fluid.

Books Received

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

MEDIZINAL-BERICHTE über die deutschen Schutzgebiete, Deutsch-Ostafrika, Kamerun, Togo, Deutsch-Südwestafrika, Neu Guinea, Karolinen, Mars.-Ali-Inseln und Samoa, für das Jahr 1905-1906. By Herausgegeben vom Reichskolonialamt. Mit 4 Skizzen im Text und 2 Plänen. Price, $1.50. Berlin: Ernst Siegfried Mittler und Sohn, Kochstrasse 68-71, 1907.

PRACTICE OF MEDICINE FOR NURSES. By George Howard Hoxie, A.M., M.D., Professor of Internal Medicine in the University of Kansas. With a Chapter on the Technic of Nursing, by Pearl L. Laptad, Principal of the Training School for Nurses of the University of Kansas. Cloth. Pp. 284. Price, $1.50. Philadelphia: W. B. Saunders Co., 1908.

TREATMENT OF INTERNAL DISEASES, for Physicians and Students. By Dr. Norbert Ortner of the University of Vienna. Edited by Nathaniel Bowditch Potter, M.D., Visiting Physician to the New York City Hospital. Translated by Frederic H. Bartlett, M.D., from the Fourth German Edition. Cloth. Pp. 658. Price $5.00. Philadelphia: J. B. Lippincott.

MEDICAL JURISPRUDENCE AND TOXICOLOGY. By Fred J. Smith, M.A., M.D. Oxon., F.R.C.P. Lond., F.R.C.S. Eng., Physician to and Lecturer on Forensic Medicine at the London Hospital. Second Edition. Cloth. Pp. 463. Price, $3.40. Philadelphia: P. Blakiston's Son & Co., 1908.

SEVENTH Annual Report of the Work of the Cancer Laboratory of the New York State Department of Health for the Year 1905-1906. Conducted at the Gratwick Research Laboratory, University of Buffalo. Paper. Pp. 124. Albany: J. B. Lyon Co., 1907.

SIXTH Annual Report of the Work of the Cancer Laboratory of the New York State Department of Health for the Year 1904-1905. Conducted at the Gratwick Research Laboratory, University of Buffalo. Paper. Pp. 79. Albany: J. B. Lyon Co., 1907.

THE FEDERAL MEAT INSPECTION SERVICE. By A. D. Melvin, D.V.S., Chief of the Bureau of Animal Industry. Circular 125, Bureau of Animal Industry, U. S. Department of Agriculture. Paper. Pp. 40. Washington: Government Printing Office, 1908.

DIAGNOSIS AND TREATMENT OF PULMONARY TUBERCULOSIS. By Francis M. Pottenger, A.M., M.D., Professor of Clinical Medicine, Medical Department University of Southern California. Cloth. Pp. 377. Price, $3.50. New York: William Wood & Co., 1908.

THE PRODUCTION AND HANDLING OF CLEAN MILK. By Kenelm Winslow, M.D., M.D.V., B.A.S. (Harv.), Chairman of the Committee on Milk of the Washington State Medical Association. Cloth. Pp. 207. Price, $2.50. New York: William R. Jenkins Co.

PERSONAL HYGIENE IN TROPICAL AND SEMITROPICAL COUNTRIES. By Isaac Williams Brewer, M.D., Member of the American Society of Tropical Medicine. Pp. 130, with 8 illustrations. Flexible Cloth. Price $1.00. Philadelphia: F. A. Davis Co.

A NARRATIVE of the Work Done in a Year by the Boston Association for the Relief and Control of Tuberculosis. Annual Report, Fourth Year, Nov. 1, 1906 to Oct. 31, 1907. Paper. Pp. 44. Price 15c. Published by the Association.

TEXT-BOOK OF SURGICAL ANATOMY. By William Francis Campbell, M.D., Professor of Anatomy, Long Island College Hospital. Cloth. Pp. 675, with 319 illustrations. Price, $5.00. Philadelphia: W. B. Saunders Co., 1908.

REPORT of Provisional Administration of the Republic of Cuba, from October, 1906, to December, 1907. By Charles E. Magoon, Provisional Governor. Paper. Pp. 557. Havana: Rambla and Bouza, 1908.

THE BLACK DEATH OF 1348 AND 1349. By Francis Aidan Gasquet, D.D., Abbot President of the English Benedictines. Second Edition. Pp. 272. Price, $2.00. London: George Bell & Sons, 1908.

MEDICO-PHYSICAL WORKS, Being a Translation of "Tractatus Quinque Medico-Physici." By John Mayow, LL.D., M.D. Cloth. Pp. 331. Price $1.36. Chicago: University of Chicago Press, 1908.

CHRONIC CONSTIPATION. By J. Alexander MacMillan, B.A., M.D., Professor of Therapeutics in Detroit College of Medicine. Cloth. Pp. 257. Price $2.00. Kansas City, Mo.: The Burton Co., 1908.

CLINICAL LECTURES AND ADDRESSES ON SURGERY. By C. B. Lockwood, Surgeon to St. Bartholomew's Hospital. Flexible Cloth. Pp. 307. Price, $1.50. New York: Oxford University Press, 1907.

MEDICAL LECTURES AND APHORISMS. By Samuel Gee, M.D., Fellow of the Royal College of Physicians. Flexible Cloth. Pp. 363. Price $1.50. New York: Oxford University Press. 1908.

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